



UNDERGRADUATE EDUCATION COMMITTEE (UEC) MEETING
January 28, 2022 - 10:00 AM
A225

AGENDA

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Page

**1. APPROVAL OF THE AGENDA**

**2. APPROVAL OF UEC MINUTES**

5 - 8            **2.1. UEC draft minutes: Nov. 26, 2021**

MOTION: To approve the draft minutes as presented.

**3. COURSES AND PROGRAMS**

9 - 18           **3.1. Child, Youth, and Family Studies**

Review with changes including prerequisites and corequisites: ECE 130

Review with changes including corequisites: ECE 135

Review with changes including title: ECE 243

MOTION: To approve the ECE course outlines as presented.

19 -            **3.2. Environmental Studies**

25            New course: ENV 330

MOTION: To approve the new ENV 330 course outline as presented.

26 -            **3.3. Land Use and Environmental Change**

47            Review with changes including title: GEOG 140

Review with changes: GEOG 257/CMNS 257

New course: GEOG 260, Global Goals Studio: Sustainable Communities by Design

Review with changes including total hours: GEOG 304

New course: GEOG 358, Forensic Geographic Information Systems

MOTION: To approve the GEOG course outlines as presented.

48 -            **3.4. Applied and Technical Studies**

84            Changes including credits: ELTR 100

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New course: ELTR 105, Electrical Network Analysis: Alternating Current

Changes including calendar description: ELTR 110

Changes including prerequisites: ELTR 150

Discontinuation: ELTR 170

Changes including credits and total hours: ELTR 202

Changes including calendar description: ELTR 216

New course: ELTR 217, Robotics

Changes to program requirements: Electronics Technician certificate

Changes to program requirements: Automation and Robotics Technician diploma

MOTION: To approve the ELTR course outlines as presented.

MOTION: To approve the changes to the Electronics Technician certificate as presented, effective September 2022.

MOTION: To approve the changes to the Automation and Robotics Technician diploma as presented, effective September 2022.

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### **3.5. Biology**

Review with changes: BIO 330, 409

Review with changes including prerequisites: BIO 340, 408, 415, 416

New course: BIO 427, Plants and Drugs

Changes to program requirements: Biology Honours

Changes to program requirements: Biology major and concentrations (Pre-Medicine/Pre-Veterinary concentration; Cellular, Molecular, and Genetics concentration; Ecology and Biology of Organisms concentration)

Changes to program requirements: Biology extended minor (for BA students)

Changes to program requirements: Biology minor (for BSc students)

Changes to program requirements: Biology minor (for BKin students)

MOTION: To approve the revised BIO 330, 340, 408, 409, 415, and 416 course outlines as presented.

MOTION: To approve the new BIO 427 course outline as presented.

MOTION: To approve the changes to the Biology Honours, Biology major and concentrations, Biology extended minor (BA), Biology minor (BSc), and Biology minor (BKin) as presented, effective September 2022.

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### **3.6. Integrated Studies**

Changes to program requirements: Bachelor of Integrated Studies

Changes to program requirements: General Studies diploma

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MOTION: To approve the changes to the Bachelor of Integrated Studies as presented, effective September 2022.

MOTION: To approve the changes to the General Studies diploma as presented, effective September 2022.

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**3.7. Business**

New course: BUS 491

New program: Professional Sales minor

MOTION: To approve the new BUS 491 course outline as presented.

MOTION: To recommend the new Professional Sales minor as presented.

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**3.8. Communications**

New program: Communications major

MOTION: To recommend the new Communications major as presented.

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**3.9. Criminology and Criminal Justice**

Discontinuation: CRIM 205, 235, 481

MOTION: To approve the discontinuation of CRIM 205, 235, and 481.

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**3.10. History**

Discontinuation: HIST 310, 374, 425

MOTION: To approve the discontinuation of HIST 310, 374, and 425.

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**3.11. Social, Cultural, and Media Studies**

Discontinuation: ANTH 209/LING 209, SOC 215, ANTH 407/MACS 407, SOC 433, SOC 440, SOC 463/ANTH 463/LAS 463

MOTION: To approve the discontinuation of ANTH 209/LING 209, SOC 215, ANTH 407/MACS 407, SOC 433, SOC 440, and SOC 463/ANTH 463/LAS 463.

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**3.12. Social Work and Human Services**

Discontinuation: HSER 500, 501, 502, 510, 511, 512, 527, 528, 530

MOTION: To approve the discontinuation of HSER 500, 501, 502, 510, 511, 512, 527, 528, and 530.

**4. OTHER BUSINESS/DISCUSSION ITEMS**

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**4.1. Admissions Subcommittee membership and report**

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**4.2. Policy Subcommittee membership and report**

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**4.3. UEC membership and Terms of Reference**

**4.4. APPC report**

**4.5. Senate report**

**4.6. Senate Teaching and Learning Committee report**

**5. INFORMATION ITEMS**

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**5.1. UEC vacancies as of July 31, 2022**

**5.2. Minor course changes** (outlines will be available at  
[www.ufv.ca/calendar/courseoutlines](http://www.ufv.ca/calendar/courseoutlines))

BIO 106, 305, 308, 309, 310, 312, 320/BIOC 320, 335/GEOG 335, 360, 370,  
380, 383, 385, 401, 403/BIOC 403, 406, 410/GEOG 410, 414/BIOC 414, 420,  
421, 425, 426, 430, 448, 496, 498, 499

CMNS 340, 412

ENGL 108, 321, 336, 338, 339, 379

GEOG 202, 240, 303, 402

**6. ADJOURNMENT**





## **UNDERGRADUATE EDUCATION COMMITTEE (UEC) MEETING**

November 26, 2021  
10:00 AM - A225  
Abbotsford Campus

### **DRAFT MINUTES**

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**PRESENT:** Ian Affleck, Adrianna Bakos, Jennifer Browne, Claire Carolan, Claire Hay, Carl Janzen, Nicholas Johnson, Amber Johnston, David Johnston, Gilmour Joep, Selena Karli, Randy Kelley, Dana Landry, David McGuire, Theresa Mulder, Linda Pardy, Samantha Patridge, Vanessa Radzimski, Shelley Stefan, and Sven Van de Wetering  
**ABSENT:** Vlad Dvoracek, Shirley Hardman, Elaine Newman, Sarbjot Nijjar, and Ravneet Sohal  
**GUESTS:** Geetanjali Gill, Sarah Graham, Karin Jager, Bobby Jaswal, Rashad Mammadov, Marlene Murray, Stephen Piper, Chris Schinckus, Greg Schmaltz, Daryl Smith, and Tony Stea  
**RECORDER:** Amanda Grimson

#### **1. APPROVAL OF THE AGENDA**

#### **2. APPROVAL OF UEC MINUTES**

##### **2.1. UEC draft minutes: October 29, 2021**

##### **MOTION:**

To approve the draft minutes as presented.

CARRIED

#### **3. COURSES AND PROGRAMS**

##### **3.1. Biology**

Changes including title and prerequisites: BIO 306

Changes including prerequisites, course number, and cross-listing as BIO: BIOC 412/BIO 412 (formerly BIOC 402)

New course: BIO 418, Ethnobotany

Tony Stea (Biology department representative) provided updated responses to the memo question regarding indigenization.

##### **MOTION:**

To approve the BIO 306 course outline as presented.

CARRIED

##### **MOTION:**

To approve the BIOC 412/BIO 412 course outlines as amended:

- Calendar notes will be corrected to refer to BIO 412/BIOC 412 rather than BIO 402/BIOC 402.

CARRIED

##### **MOTION:**

To approve the new BIO 418 course outline as amended:

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- Learning outcome #5: delete "critically".
- Learning outcome #6 changed to "Discuss the use of..."

CARRIED

**3.2. Communications**

Changes including prerequisites: CMNS 300/JRNL 300

**MOTION:**

To approve the CMNS 300/JRNL 300 course outline as amended:

- Some minor edits will be made to the calendar description.

CARRIED

**3.3. Global Development Studies**

New course: GDS 204, Development in Sub-Saharan Africa

New course: GDS 332, Refugees, Displacement, and Development

**MOTION:**

To approve the new GDS 204 and GDS 332 course outlines as amended:

- GDS 332: assignment details will be provided, and some texts will be identified as supplementary.

CARRIED

**3.4. Social Work and Human Services**

Discontinuation: HSER 292

**MOTION:**

To approved the discontinuation of HSER 292 as presented.

CARRIED

**3.5. Business**

Addition of Co-operative Education option: Bachelor of Business Administration (Aviation)

Addition of Co-operative Education option: Business Administration (Aviation) diploma

Addition of MATH 111 as an option: Business programs:

- Bachelor of Business Administration
- Bachelor of Business Administration (Aviation)
- Business Administration (Aviation) diploma
- Accounting major
- Finance major
- Human Resource Management major
- International Business major
- Marketing major
- Bachelor of Business Administration for Agriculture Management
- Bachelor of Business Administration for Trades Management
- Bachelor of Business Administration Honours
- Bachelor of Business Administration (Aviation) Honours

**MOTION:**

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To recommend the addition of Co-operative Education to the Bachelor of Business Administration (Aviation) and Business Administration (Aviation) diploma as presented, effective September 2022.

CARRIED

**MOTION:**

To approve the addition of MATH 111 as an option to the Business programs as presented, effective May 2022.

CARRIED

**3.6. Computing**

Changes to entrance and program requirements: Coding Skills associate certificate

**MOTION:**

To recommend the changes to the Coding Skills associate certificate entrance requirements as presented, effective September 2022.

CARRIED

**MOTION:**

To approve the changes to the Coding Skills associate certificate program requirements as presented, effective May 2022.

CARRIED

**3.7. Graphic and Digital Design**

Change to program requirements: Graphic and Digital Design minor

**MOTION:**

To recommend the changes to the Graphic and Digital Design minor, effective September 2022.

CARRIED

**4. OTHER BUSINESS/DISCUSSION ITEMS**

**4.1. APPC report**

APPC has not met recently.

**4.2. Senate report**

Senate approved the final version of the Undergraduate Course and Program Approval policy (21). The Provost also presented information on a Strategic Enrolment Management project that should be in place by June.

**4.3. Senate Teaching and Learning Committee report**

STLC has not met recently.

**4.4. Policy Subcommittee report**

The Policy Subcommittee will meet following UEC to discuss a draft of the Transfer Credit policy (107), initial feedback on the English Language Proficiency

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Requirement policy (99), and a few others. The subcommittee will also be working with Alisa Webb on the Course Repeat policy (86).

**4.5. Admissions Subcommittee membership**

This was postponed to the next UEC meeting.

**5. INFORMATION ITEMS**

**5.1. Academic Misconduct Report 2020/21**

**5.2. Minor course changes** (outlines will be available at  
[www.ufv.ca/calendar/courseoutlines](http://www.ufv.ca/calendar/courseoutlines))  
ECE 296-269

**6. ADJOURNMENT**

The meeting was adjourned at 10:53 am.

**Memo for Course Changes**

To: UEC

From: Christine Slavik, CYFS Department Head

Date: April 28, 2021

**Subject: Proposal for revision of ECE 130 Presenting Literature to Children**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☒ Other – Please specify: Course content-minor changes

2. Rational for change: Improve clarity of prerequisites. ECE 132 is now offered in first year. This reflects the current course offerings. Calendar description and the learning outcomes reflect the six-year review.
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s): n/a
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? n/a
5. Which program areas have been consulted about the changes? ECE Curriculum Committee
6. What consideration has been given to indigenizing the curriculum? -The course has been delivered in indigenous communities (Stolo, Seabird Island) in the past. Learnings from indigenous elders and leaders have been applied.  
Most important examples:  
- Literature from history including “indigenous stories”.  
- Literature selections honouring personal experiences.
7. If this course is not eligible for PLAR, explain why: n/a
8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: n/a
  - a. Credit value
  - b. Class size limit
  - c. Frequency of offering
  - d. Resource s required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? n/a
10. Estimate of the typical costs for this course, including textbooks and other materials: n/a



ORIGINAL COURSE IMPLEMENTATION DATE: September 1993  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|--|--------------------------------------------------------------|--|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ECE 130                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                          |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Full Title:</b> Presenting Literature to Children<br><b>Course Short Title:</b> Presenting Lit to Children<br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Professional Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Department (or program if no department):</b> CYFS                                                                                                                                                                                                                                                                                           |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Calendar Description:</b><br>An experiential examination of a number of methods of helping young children enjoy literature. Topics include the history of children's literature, storytelling, puppetry, poetry, creative drama, and play acting.                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | ECE 122, ECE 123, ECE 124, and ECE 125.                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | ECE 133 and ECE 135.                                                                                                                                                                                                                                                                                                                            |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                           |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                   |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                        |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="#">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>45</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                           | 45 | Tutorials/workshops |  | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 45        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Maximum enrolment (for information only):</b> 36<br><b>Expected Frequency of Course Offerings:</b><br>Annually <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                            |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Christine Slavik                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date approved:</b> April 29, 2021                                                                                                                                                                                                                                                                                                            |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Date approved:</b> June 4, 2021                                                                                                                                                                                                                                                                                                              |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                        |    |                     |  |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |

ECE 130

University of the Fraser Valley Official Undergraduate Course Outline

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## Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Select quality literature for young children.
2. Select diverse literature for young children including indigenous stories.
3. Present children's literature effectively through the following mediums: storytelling, reading children's stories to a group, story baskets, and using puppets.
4. Describe the relationship between children's literature and dramatic play.
5. Use literature to support dramatic play.
6. Design "prop boxes" that can be used to facilitate dramatic play.

## Prior Learning Assessment and Recognition (PLAR)

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

Lecture

Student presentation

**NOTE:** The following sections may vary by instructor. Please see course syllabus available from the instructor.

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.              | Publisher | Year |
|----------------------------|--------------------------------------|--------------------------|-----------|------|
| 1.                         | Course pack and/or assigned readings | <input type="checkbox"/> |           |      |
| 2.                         |                                      | <input type="checkbox"/> |           |      |
| 3.                         |                                      | <input type="checkbox"/> |           |      |
| 4.                         |                                      | <input type="checkbox"/> |           |      |
| 5.                         |                                      | <input type="checkbox"/> |           |      |

## Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

## Typical Evaluation Methods and Weighting

|                |     |              |     |                   |   |            |      |
|----------------|-----|--------------|-----|-------------------|---|------------|------|
| Final exam:    | %   | Assignments: | 25% | Field experience: | % | Portfolio: | 40%  |
| Midterm exam:  | 20% | Project:     | 15% | Practicum:        | % | Other:     | %    |
| Quizzes/tests: | %   | Lab work:    | %   | Shop work:        | % | Total:     | 100% |

## Details (if necessary):

## Typical Course Content and Topics

- Evaluating literature for young children
- History of children's literature, including Indigenous stories
- Language development
- Effective storytelling
- Felt stories
- Story baskets
- Dramatic stories
- Literature and early reading.

**Memo for Course Changes**

To: UEC

From: Christine Slavik, CYFS Department Head

Date: April 28, 2021

**Subject: Proposal for revision of ECE 135 Curriculum Development in Early Childhood Education**

Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☒ Other – Please specify: Course content-minor changes

2. Rational for change: Corequisite change: The content from ECE 135 is integrated into practice in ECE 133 Advanced Practicum. Learning outcomes reflect the six-year review.
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s): n/a
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? n/a
5. Which program areas have been consulted about the changes? ECE Curriculum Committee
6. What consideration has been given to indigenizing the curriculum? The course has been delivered in indigenous communities (Stolo, Seabird Island) in the past. Learnings from Indigenous elders and leaders have been applied. Land-based learning recognized as a critical pedagogy.
7. If this course is not eligible for PLAR, explain why: n/a
8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: n/a
  - a. Credit value
  - b. Class size limit
  - c. Frequency of offering
  - d. Resource s required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? n/a
10. Estimate of the typical costs for this course, including textbooks and other materials: n/a





ORIGINAL COURSE IMPLEMENTATION DATE: September 1993  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|----|--------------------------------------------------------------|--|------------------------------|--|----------------------|--|--------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ECE 135                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                   |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Course Full Title:</b> Curriculum Development in Early Childhood Education<br><b>Course Short Title:</b> Curriculum Dev.in ECE<br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Faculty:</b> Faculty of Professional Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Department (or program if no department):</b> CYFS                                                                                                                                                                                                                                    |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Calendar Description:</b><br>An experiential workshop course focusing on the relevant factors affecting curriculum planning for groups of preschool children, with a focus on science, math, and social studies.                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | ECE122 and ECE 125.                                                                                                                                                                                                                                                                      |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | ECE 130 and ECE 133.                                                                                                                                                                                                                                                                     |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                             |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                            |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>25</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td>20</td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                                    | 25 | Tutorials/workshops |  | Supervised laboratory hours | 20 | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="http://bctransferguide.ca">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 25        |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20        |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>45</b> |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit                                                                                                                                                                     |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Maximum enrolment (for information only):</b> 36<br><b>Expected Frequency of Course Offerings:</b> Annually<br><i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                     |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Department / Program Head or Director:</b> Christine Slavik                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date approved:</b> April 29, 2021                                                                                                                                                                                                                                                     |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date approved:</b> June 4, 2021                                                                                                                                                                                                                                                       |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                 |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |  |

ECE 135

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

## Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Describe how young children construct knowledge in each of the curriculum areas.
2. Create "hands-on" experiences in science.
3. Create developmentally appropriate "hands-on" experiences that help young children learn basic math concepts.
4. Demonstrate how the curriculum can be incorporated throughout the childcare facility (learning environment).
5. Design all aspects of an indoor and outdoor childcare environment.
6. Reflect on their own culture to understand the context of culture in an early learning environment.

## Prior Learning Assessment and Recognition (PLAR)

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

Lectures, hands-on activities, group discussions and presentations, audio-visual materials, assignments.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

|    | Author (surname, initials)               | Title (article, book, journal, etc.)                                                  | Current ed.                         | Publisher | Year |
|----|------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------|-----------|------|
| 1. | Williams, R.; Rockwell, R.; Sherwood, E. | Mudpies to Magnets: A Preschool Science Curriculum. 2 <sup>nd</sup> Ed.               | <input checked="" type="checkbox"/> |           | 1990 |
| 2. | Shipley, C.D.                            | Empowering Children: Play-Based Curriculum for Lifelong Learning. 5 <sup>th</sup> Ed. | <input type="checkbox"/>            |           | 2012 |
| 3. | Munzer-Briner, S.                        | Learn to Play, Play to Learn.                                                         | <input type="checkbox"/>            |           | 2000 |
| 4. |                                          |                                                                                       | <input type="checkbox"/>            |           |      |
| 5. |                                          |                                                                                       | <input type="checkbox"/>            |           |      |

## Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

Supplies/materials may need to be purchased in order to complete some assignments (will vary depending on topic that is selected).

## Typical Evaluation Methods and Weighting

|                |     |              |     |                   |   |                       |      |
|----------------|-----|--------------|-----|-------------------|---|-----------------------|------|
| Final exam:    | 15% | Assignments: | 35% | Field experience: | % | Portfolio:            | 10%  |
| Midterm exam:  | %   | Project:     | 30% | Practicum:        | % | Attend/participation: | 10%  |
| Quizzes/tests: | %   | Lab work:    | %   | Shop work:        | % | Total:                | 100% |

## Details (if necessary):

## Typical Course Content and Topics

- How we can most effectively educate young children
- How children learn math concepts
- Math games and activities
- How children learn science concepts
- Science concepts and activities (land-based and indoor activities)
- Understanding children's social development
- The value of dramatic play
- Multiculturalism
- Designing learning environments

**Memo for Course Changes**

To: UEC

From: Christine Slavik, CYFS Department head

Date: January 26, 2021

**Subject: Proposal for revision of (ECE 243 Practicum: Infancy)**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

*Calendar change/title change reflects provincial certification of infant and toddler specialization (inclusive of birth-three years old). Diploma in Infant/Toddler Specialization is moving to a hybrid model to accommodate and recognize the importance of developing strong communities of practice and local peer mentorship while remaining accessible to students who live beyond the Fraser Valley. The rationale for adding ECE 282 as a co-requisite is that this is the curriculum (activity plans) that is directly applied on the practicum course ECE 282.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

*Learning outcomes recognize the need to include interrelationship between culture, inclusion, and development. Language of respectful and responsive caregiving reflects language of Early Learning Framework and adherence to the ECEBC Code of Ethics.*

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? n/a

5. Which program areas have been consulted about the change(s)? n/a

6. What consideration has been given to indigenizing the curriculum. *Changes to the learning outcomes reflect awareness of how culture and Indigenous world views affects the narratives of early childhood education. Students will demonstrate understanding and respect for each child's culture and the role this plays in individual development.*

7. If this course is not eligible for PLAR, explain why: n/a

8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area:

- a. Credit value
- b. Class size limit

- c. Frequency of offering
  - d. Resources required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.)  
How are the trips funded? n/a
10. Estimate of the typical costs for this course, including textbooks and other materials: *\$100 plus student is responsible for transportation to practicum site.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 1993  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2028  
**Course outline form version:** 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|--|--------------------------------------------------------------|-----|------------------------------|--|----------------------|--|--------------------|------------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ECE 243                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | <b>Number of Credits:</b> 6 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                  |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Course Full Title:</b> Practicum: Infant and Toddler Specialization<br><b>Course Short Title:</b> Practicum I/T<br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Professional Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Department (or program if no department):</b> Child, Youth & Family Studies                                                                                                                                                                                                                                                                                          |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Calendar Description:</b><br>Students work directly with infants and toddlers in a variety of settings. Emphasis is on observing, recording, health and safety issues, and transfer of infant care theory into practice. Students must be prepared to be available for regular daytime work hours for practicum.                                                                                                                                                                                                                                                                                                                                                              |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | ECE 213, ECE 269, and admission to the Early Childhood Education diploma.                                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | ECE 282.                                                                                                                                                                                                                                                                                                                                                                |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                                           |            | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                                           |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                                                |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="http://bctransferguide.ca">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar hours</td> <td style="text-align: right;">26</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td style="text-align: right;">200</td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: right;"><b>226</b></td> </tr> </table> |            | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                   | 26 | Tutorials/workshops |  | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) | 200 | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>226</b> | <b>Grading System</b><br><input type="checkbox"/> Letter Grades <input checked="" type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 26         |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 200        |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>226</b> |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | <b>Maximum enrolment (for information only):</b> 18<br><b>Expected Frequency of Course Offerings:</b><br>Annually <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                                                    |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Christine Slavik                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | <b>Date approved:</b> January 26, 2021                                                                                                                                                                                                                                                                                                                                  |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Date approved:</b> March 12, 2021                                                                                                                                                                                                                                                                                                                                    |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                |    |                     |  |                             |  |                                                              |     |                              |  |                      |  |                    |            |                                                                                                                      |  |

## Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Describe the developmental differences between the infant and the toddlers.
2. Effectively implement responsive and respectful programs for infants and toddlers.
3. Use one-to-one interaction (especially daily routines) as an effective teaching method.
4. Demonstrate an openness to models of early childhood infant/toddler practice which may differ from their usual orientation.
5. Apply theoretical concepts related to infant/toddler caregiving.
6. Demonstrate professionalism in communicating with sponsor teacher, professionals, and families.
7. Demonstrate knowledge and adherence to the ECEBC Code of Ethics.

## Prior Learning Assessment and Recognition (PLAR)

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

Methods include introduction to practicum, seminar, centre observations or video recording, field experience, and communication with sponsor teacher.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.              | Publisher | Year |
|----------------------------|--------------------------------------|--------------------------|-----------|------|
| 1.                         |                                      | <input type="checkbox"/> |           |      |
| 2.                         |                                      | <input type="checkbox"/> |           |      |
| 3.                         |                                      | <input type="checkbox"/> |           |      |
| 4.                         |                                      | <input type="checkbox"/> |           |      |
| 5.                         |                                      | <input type="checkbox"/> |           |      |

## Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

Practicum manual and sponsor teacher manual.

## Typical Evaluation Methods and Weighting

|                |   |              |   |                   |     |            |      |
|----------------|---|--------------|---|-------------------|-----|------------|------|
| Final exam:    | % | Assignments: | % | Field experience: | 85% | Portfolio: | %    |
| Midterm exam:  | % | Project:     | % | Practicum:        | %   | Seminar:   | 15%  |
| Quizzes/tests: | % | Lab work:    | % | Shop work:        | %   | Total:     | 100% |

## Details (if necessary):

## Typical Course Content and Topics

- Apply theory learned in ECE 269 in the on-the-floor practicum.
- Practice observing, recording, and reflective skills.
- Evaluate the environment for health and safety concerns.
- Professional and personal boundaries and ethics.

**Memo for New Course**

To: FSCC, SFC, and UEC

From: Stefania Pizzirani, Chair, Environmental Studies CC

Date: January 4, 2022

**Subject: Proposal for new course (ENV 330 Sustainable Fashion)**

1. Rationale for new course: The fashion industry is one of the most challenging and complex environmental issues of our time. This trillion-dollar industry generates around 10% of global carbon emissions, produces around 20% of global wastewater pollution, and creates substantial amounts of waste with 85% of textiles landfilled or incinerated. However, the field of sustainable fashion is rapidly gaining momentum. Indeed, in 2019, the United Nations Alliance for Sustainable Fashion was launched to create a platform to unify the common efforts of various agencies.

The Sustainable Fashion course will introduce students to a range of socio-cultural, environmental, and economic impacts associated with the fashion industry, and will explore the science, ethics, and values within this global issue.

2. How this new course fits into program(s):

The Sustainable Fashion course will be placed within the Environmental Studies program as it aligns with this program's focus on human-environment relationships, resource use, environmental communication, and innovative strategy development. The Environmental Studies program is designed to offer students with a solid understanding of environmental science, issues and strategies, communications, and ethics. The Sustainable Fashion course contextualizes these learning components by exploring these concepts within real-world examples in the fashion industry. This course is not a required course, and it is offered as an elective. Thus, it may reduce the number of students in other 300-level elective courses. The course meets the ILOs 1, 2, 3, 4, 5, 6, 8, and 9.

3. Explain how the course learning outcomes align with the learning outcomes of the program(s):

The course learning outcomes include enabling students to: discuss the benefits and challenges of the fashion industry life cycle; learn the science of fashion techniques; reflect on the ethics of the fashion industry; explore communication strategies; assess sustainable fashion case studies; and to work collaboratively within groups on an experiential project. These learning outcomes align with those of the Environmental Studies program by providing students with opportunities to: practically and theoretically examine industry practices; collaboratively develop environmentally-focused strategies; and build connections across the disciplines of environmental studies, natural sciences, ethics, and communication.

4. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs?

It may not be required by other programs but it may be encouraged as an elective in other programs such as Global Development Studies and/or Geography.

5. Which program areas have been consulted about the course?

Business, Global Development Studies, and Geography. (see attached confirmations of support via email from Stephen Piper (GDS) and Jonathan Hughes (SLUEC/Geography). The course outline was sent to the CMNS department in November 2021 for consultation, but no feedback was returned.

6. If a new discipline designation is required, explain why:

N/A

7. What consideration has been given to indigenizing the curriculum?

The course will feature Indigenous histories and current uses of fashion including production of materials, science and methods of dying, and purposeful design techniques. Indigenous artisans (particularly, at a local scale) and their work will be introduced as case studies in the course, and the artisan may also be a guest lecturer (should their schedule allow it). Engagement has already begun with Nations Creations based at the Stó:lō Research and Resource Management Centre to determine if/how the course and the course project could collaborate with local artisans and businesses.

Additionally, this course will feature content from diverse authors and will strive to attain equitable representation from many underrepresented communities. The course topics are modern and timely, representing such current socio-cultural challenges as environmental racism, gender-based violence, and slave labour practices. The curriculum will be delivered in pre-recorded lectures which have subtitles. The presentation slides will be provided with alternative text for photos. All synchronous sessions are also recorded. Assignments will be varied (e.g., video assignment, visual infographic, reflective journal, etc.) to be inclusive of student preferences. No textbook will be required to help students with financial challenges. The quizzes will be open-note and take-home to account for students who have accommodations.

8. If this course is not eligible for PLAR, explain why:

n/a

9. Explain how each of the following will affect the budget for your area or any other area:

- a. Credit value

4-credit course with a lab and 60 contact hours

- b. Class size limit

28-student limit

Note: the course is designed to be taught by a single instructor (with 28 maximum enrollment) worth 1 section. However, with the approval from the Science Dean, the ENV 330 course may also be team-taught (with 36 maximum enrollment) worth 1.5 sections. This optional team-teaching partnership would involve Environmental Studies and one of several possible disciplines (e.g., Communications (CMNS), Business, Global Development Studies, Geography). Since it is the dominant focus of the class,



the Environmental Studies instructor would receive 1 section; the other instructor (from a different discipline) would receive 0.5 sections but would only teach 3-4 weeks of the course. The option to team-teach allows the course to more deeply explore a context like CMNS, Business, GDS, or Geography.

c. Frequency of offering

Offered once a year

d. Resources required (labs, equipment)

No resources or particular lab space is required at this time. In the future, if the team teaching context changes to a discipline that uses lab equipment (e.g. water quality assessments), then lab space may be required.

10. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?

Yes, one field trip may be made to a local operator in the fashion industry (e.g. material producer, fashion designer, Indigenous artisan, sustainable fashion retailer, textile recycler). While courses are online, the field trip will be virtual and no fee will be collected. When courses resume in-person instruction, the fee for a bus may be added to the course fee if bus transport is required. Bus fees are typically added to the course fee, and students pay this when they register for the course. Alternatively, local field trips may be accessible by public transport so no bus transport will be needed.

11. Estimate of the typical costs for this course, including textbooks and other materials:

Beyond the costs of tuition and fees, students can anticipate spending up to \$50 on book costs (if students prefer to purchase the full version of any cited books) and gas for field trips.

The course will include guest speakers and/or collaborators from within various sectors of the fashion industry – their honoraria (typically \$50 each) is covered from the SLUEC budget.

**CWC comments and responses:**

- How/where will this course fit in the program? (Will it be a required course, reduce the number of students in other courses, or be offered in place of another course?)  
*It is an elective course in the ENV program and will be added as an elective in the BA Geography and the GDS programs. It may draw students from other courses.*
- How will this course be team taught?  
*I consulted with Lucy Lee about this. Since she cannot guarantee a 2-section weighting for this course, we agree that the course will now be offered in a more “traditional” method of being delivered by a single instructor, 1-section weighting, and 28-seat enrollment. So, this will be the “default” method of running the course. However, with Lucy’s approval, the course may also be offered using a team-taught method with a 1.5 section weighting and a 36-seat enrollment. In the team-taught method, 1 section will go to the Environmental*

*Studies instructor (given that this is the dominant focus of the course), and 0.5 sections would go to the other instructor (from an outside discipline) but they would only be required to teach 3-4 weeks in the course. This opportunity for team teaching would create an opportunity to dive a bit deeper into certain contexts related to fashion (e.g., CMNS, Business, GDS, Geography).*

- Prerequisites: will 30 credits in anything really prepare students for this type of upper-level course?  
*The prerequisites now reflect 45-credits.*



ORIGINAL COURSE IMPLEMENTATION DATE: September 2022  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|----|-----------------------------|--|--------------------------------------------------------------|---|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ENV 330                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Number of Credits:</b> 4 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                          |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Full Title:</b> Sustainable Fashion<br><b>Course Short Title:</b><br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Department (or program if no department):</b> SLUEC                                                                                                                                                                                                                                                                                          |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Calendar Description:</b><br>Students will explore current impacts associated with the fashion industry, how sustainable fashion strategies are developed to respond to impacts, and how the role of communication affects consumer demands. Socio-cultural, economic, and environmental data is analyzed using real-world fashion case studies. Collaborative research projects will provide experiential learning opportunities.<br>Note: Field trips outside of class time may be required. Please refer to department website for field trip scheduling information.<br>Note: Students with credit for GEOG 300S cannot take this course for further credit. |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | 45 university-level credits.                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | NONE                                                                                                                                                                                                                                                                                                                                            |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | NONE                                                                                                                                                                                                                                                                                                                                            |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: GEOG 300S<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                    |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                   |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                        |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="#">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>25</td> </tr> <tr> <td>Tutorials/workshops</td> <td>30</td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td>5</td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>60</b></td> </tr> </table>                                                                                                                                                 |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                           | 25 | Tutorials/workshops | 30 | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) | 5 | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>60</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 25        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 30        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5         |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>60</b> |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Maximum enrolment (for information only):</b> 28<br><b>Expected Frequency of Course Offerings:</b><br>Annually <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                            |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Jonathan Hughes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date approved:</b> May 2011                                                                                                                                                                                                                                                                                                                  |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date approved:</b> September 10, 2021                                                                                                                                                                                                                                                                                                        |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                        |    |                     |    |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |  |

## Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Describe the predominant life cycle components of various fashion industries across the world.
- Critically assess the key economic, social, cultural, and environmental impacts in the current fashion industry.
- Distinguish between the values and priorities of multiple stakeholders within the fashion industry.
- Reflect on the ethical issues associated with the various life cycle-based stages of the fashion industry.
- Demonstrate communication techniques when creating visual representations of the fashion industry's impacts.
- Evaluate emerging strategies within the sustainable fashion movement.
- Use collaborative engagement skills to complete an experiential project related to the field of sustainable fashion.

## Prior Learning Assessment and Recognition (PLAR)

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

This course may be team-taught with both instructors delivering practical and applied content. The course can be taught FTF, hybrid, or online using synchronous and asynchronous online discussion sessions, discussion board activities, data collection and analysis exercises that can be done from home, field trip (virtual, if needed), student presentations, and guest lecturers.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

| Author (surname, initials)      | Title (article, book, journal, etc.)                        | Current ed.                         | Publisher  | Year |
|---------------------------------|-------------------------------------------------------------|-------------------------------------|------------|------|
| 1. Jastram, S. M, Schneider, A. | Sustainable Fashion: Governance & New Management Approaches | <input checked="" type="checkbox"/> | Springer   | 2018 |
| 2. Fletcher, K., Tham, M.       | Routledge Handbook of Sustainability and Fashion            | <input checked="" type="checkbox"/> | Routledge  | 2015 |
| 3. Gwilt, A., Payne, A.         | Global Perspectives on Sustainable Fashion                  | <input checked="" type="checkbox"/> | Bloomsbury | 2019 |
| 4. Wearme Fashion               | Sustainable Fashion                                         | <input checked="" type="checkbox"/> | Promopress | 2021 |
| 5. Kalbaska, N., Sadaba, T.     | Fashion Communication in the Digital Age                    | <input checked="" type="checkbox"/> | Springer   | 2019 |

## Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

N/A

## Typical Evaluation Methods and Weighting

|                |     |                  |     |                   |    |            |      |
|----------------|-----|------------------|-----|-------------------|----|------------|------|
| Final exam:    | %   | Assignments (2): | 35% | Field experience: | 5% | Portfolio: | %    |
| Midterm exam:  | %   | Project:         | 40% | Practicum:        | %  | Other:     | %    |
| Quizzes/tests: | 20% | Lab work:        | %   | Shop work:        | %  | Total:     | 100% |

**Details (if necessary):** Example of possible assignments: Environmental assessment and mapping of clothing origins and components (15%); critical review of an existing sustainable fashion strategy (20%)

## Typical Course Content and Topics

Practical content

1. Fashion and textile histories and legacies (including Indigenous perspectives)
2. Values and worldviews in fashion industries
3. Life cycle, impacts, and trends of fashion
4. Sustainable fashion – science and ethics of raw materials
5. Sustainable fashion – science and ethics of design and production
6. Sustainable fashion – science and ethics of use and disposal
7. Modalities of communication in fashion
8. Science communication in fashion
9. Assessing and anticipating consumer demands
10. Methods of affecting consumer demands
11. Role of policies and international agreements
12. Future of fashion – material production
13. Future of fashion – production
14. Future of fashion – consumption

Applied content (taught in a series of workshops)

1. Fashion life cycle-value chain formation
2. Mapping of fashion impacts
3. Critical assessment of materials – durability, flexibility, recyclability
4. Product recycling – methods, challenges, and successes

*Note: This course is designed to be taught by a single instructor (with 28 maximum enrollment). However, with the approval from the Science Dean, the ENV 330 course may also be team-taught (with 36 maximum enrollment). This optional team-teaching partnership would involve Environmental Studies and one of several possible disciplines (e.g. Communications (CMNS), Business, Global Development Studies, Geography). If team teaching, the practical and applied workshop-based content listed above would be expanded to include more content from the additional discipline (e.g., CMNS, Business, GDS, Geography). For example, if partnering with Business, more practical and applied workshop-based content would focus on e.g., consumer assessment, product value, value chain analysis, and business plan development. If partnering with Global Development Studies, content would focus on e.g. planning activities, transformation of ethics and rights, and fair trade development. If partnering with Geography, content would focus on e.g., water usage and quality, agricultural practices of material creation, and utilization of natural resources.*

Memo for Course Changes

To: Lucy Lee

From: Jonathan Hughes, School of Land Use and Environmental Change

Date: 2021-11-08

Subject: **Proposal for revision of Humans and Planet Earth**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☒ Other – Please specify: Typical Course Contents and topics

2. Rationale for change: The course was last revised in 2010 and the outline was drastically outdated.

If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

The title was revised to make it catchier and trendier, attractive titles are **effective in drawing students into the course**, they convince your audience that they will be offered unique and more attractive content; we came across such an example during an articulation request from University of Northern British Columbia, a subject with exactly the same contents was entitled "GEOG 101: Planet Earth"

The learning outcomes section of the course was improved by including language to reflect UFV's strategies on Indigenization and on Equity, Diversity, and Inclusion (EDI) and to support these strategies, the "content" section of the course outline was also updated.

3. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? NA

4. Which program areas have been consulted about the change(s)? Human Geographers and SLUEC Committee.
5. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

CLOs and Course Topics updated. Keeping in view that "Reconciliation requires sustained public education and dialogue, including youth engagement, about the history and legacy of residential schools, treaties, and aboriginal rights, as well as the historical and contemporary contributions of Aboriginal peoples to Canadian society." (Source: **Truth and Reconciliation Commission's Calls to Action**) Territorial strap line has been added taking help from Cégep Heritage College resources and territorial acknowledgement is made a part of the course shell. Additionally, Indigenous culture, history and geography has been added to the course contents.

6. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Additional topics added to the course to encapsulate knowledge related to EDI e.g., Cultural diversity, colonization, decolonization, and related indigenous knowledge etc. Students are encouraged to do their term papers related to diverse cultures & societies, indigenous topics aligned with the course contents as well.

7. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

NA

8. Estimate of the typical costs for this course, including textbooks and other materials:

Hard copy of the book costs: CAD 66.65 while the e-copy costs: CAD 49.99

## CWC comments and responses:

- Why is the title being changed? "Human Geography" appears to be a widely recognized term. *The title was revised to make it catchier and trendier, attractive titles are effective in drawing students into the course, they convince your audience that they will be offered unique and more attractive content; we came across such an example during an articulation request from University of Northern British Columbia, a subject with exactly the same contents was entitled "GEOG 101: Planet Earth".*
- How will the title change impact the syllabus? (It doesn't look like the title change is reflected in the course content section.) *Contents remain the same because the sole reason behind the title change is to make the course look attractive and trendy.*



ORIGINAL COURSE IMPLEMENTATION DATE: Fall 1992  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|--|--------------------------------------------------------------|--|------------------------------|---|----------------------|--|--------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> GEOG 140                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                        |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Course Full Title:</b> Humans and Planet Earth<br><b>Course Short Title:</b><br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Department:</b> School of Land Use and Environmental Change                                                                                                                                                                                                                |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Calendar Description:</b><br>A broad survey course of human geography applying the concepts and tools of the discipline to the regions, societies, and landscapes that result from the interaction between humans and their environment and cultural, economic, social, and political landscapes.<br>Note: Field trips outside of class time may be required. Please refer to the department website for scheduling information.                                                                               |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | None.                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | None                                                                                                                                                                                                                                                                          |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                            |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                 |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>42</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td>3</td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                         | 42 | Tutorials/workshops |  | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities | 3 | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="#">bctransferguide.ca</a>.)</i><br><input type="checkbox"/> No <input checked="" type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 42        |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3         |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>45</b> |                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit                                                                                                                                                          |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Maximum enrolment (for information only):</b> 36<br><b>Expected Frequency of Course Offerings:</b><br>Every semester <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                    |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Department / Program Head or Director:</b> Jonathan Hughes                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date approved:</b> November 2021                                                                                                                                                                                                                                           |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date approved:</b> December 3, 2021                                                                                                                                                                                                                                        |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                      |    |                     |  |                             |  |                                                              |  |                              |   |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                 |  |



**Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Discuss the field of human geography, its major topics, issues, and place within the discipline of geography.
2. Use space-based approaches and methods to understand and examine the cultural, economic, social, and political landscapes humans create.
3. Identify global patterns of human geography and the causes and consequences of some inequalities that shape our world.
4. Apply fundamental skills in geographic research, analysis and synthesis and use the basic skills necessary to read and interpret maps.
5. Discuss the importance of the principles of equity, diversity, and inclusion when considering the connection between people, places, and environments.
6. To analyze Indigenous concepts and major themes in human geography.
7. Have the knowledge required for success in later courses in human geography.

**Prior Learning Assessment and Recognition (PLAR)**

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

Lectures, seminars, AV materials, and a field trip in the Fraser Valley region.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Typical Text(s) and Resource Materials** (*If more space is required, download Supplemental Texts and Resource Materials form.*)

|    | Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.              | Publisher | Year |
|----|----------------------------|--------------------------------------|--------------------------|-----------|------|
| 1  | Knox, P.                   | Human Geography                      | <input type="checkbox"/> | Pearson   | 2019 |
| 2  | Mercier, M. and Norton, W. | Human Geography                      | <input type="checkbox"/> | Oxford    | 2019 |
| 3. |                            |                                      | <input type="checkbox"/> |           |      |

**Required Additional Supplies and Materials** (*Software, hardware, tools, specialized clothing, etc.*)

Recommended Text: Goodes' World Atlas, or equivalent, latest edition.

**Typical Evaluation Methods and Weighting**

|                |      |              |     |                     |   |            |      |
|----------------|------|--------------|-----|---------------------|---|------------|------|
| Final exam:    | 10 % | Assignments: | 60% | Online Discussions: |   | Portfolio: | %    |
| Midterm exam:  | 10%  | Project:     | 20% | Practicum:          | % | Other:     | %    |
| Quizzes/tests: | %    | Lab work:    | %   | Shop work:          | % | Total:     | 100% |

**Details (if necessary):**
**Typical Course Content and Topics**

1. Introduction to the course: Basic concepts and definitions, space, interaction and movement.
2. Population geography: Population distribution and dynamics, population patterns and pressures, migration and urbanization, global inequalities.
3. People and nature: Humans and their environment, nature and the society, environmental change and its impacts, sustainable practices.
4. Cultural geography: Ethnicity, race, languages cultures and place making, cultural traits, systems and complexes.
5. Interpreting places and landscapes: Cognitive images of a place. Territoriality and othering
6. Economic geography: Patterns of economic development, resources and technology relationship, geographical division of labor, trade and debt
7. Food and agriculture: Evolution of world agricultural landscapes, agricultural practices and revolutions, food systems and food security
8. Political geography: States and nations, imperialism and colonialism, terrorism, war and peace.
9. Cityscapes and global society: urban design and planning, accessibility and land use, globalization and the network world.

**Memo for Course Changes**

To: Faculty of Science Curriculum Committee

From: SLUEC Curriculum Committee

Date: March 4, 2021

**Subject: Proposal for revision of CMNS 257/GEOG 257**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: The calendar description now reflects the students' use of digital tools in the course activities and assessments.

The course outcomes were improved by strengthening the student research component and the giving more details on the stakeholders that students will work and communicate with, including indigenous communities and environmental groups.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

The changes to the course outcomes are minor and don't constitute a substantial change.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A

5. Which program areas have been consulted about the change(s)?

The revised outline is finalized based on consultation with the Department of Communications in the College of Arts.

6. What consideration has been given to indigenizing the curriculum?

The course will compare, contrast, and synthesize different ways of gathering data about the environment such as the use of the scientific method, and now also including indigenous ways of knowing. The new course outline now reflects the importance of indigenous communities as potential stakeholders in addressing environmental issues.

7. If this course is not eligible for PLAR, explain why: N/A
8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area:
  - a. Credit value N/A
  - b. Class size limit N/A
  - c. Frequency of offering N/A
  - d. Resources required (labs, equipment) N/A
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?

The class field trip may be required. No funding is necessary.
10. Estimate of the typical costs for this course, including textbooks and other materials:

The costs of textbooks are between \$70 and \$160, depending on whether the student gets a digital or hard-copy version of the textbooks.



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2013  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2028  
**Course outline form version:** 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|--|--------------------------------------------------------------|---|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|
| <b>Course Code and Number:</b> GEOG 257                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                  |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Course Full Title:</b> Environment: Science and Communications<br><b>Course Short Title:</b> Environment: Science & Comm.<br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Department:</b> School of Land Use and Environmental Change                                                                                                                                                                                                                                                                                                          |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Calendar Description:</b><br>Introduces students to the methods of scientific inquiry and the principles of effective communication in environmental science. Students will apply the scientific method to case studies of environmental issues to highlight challenges and possible solutions at local, regional, and national scales, while exploring the interface between science, politics, and popular perceptions. Students will also use research methods and digital tools to gather and share qualitative and quantitative data with various audiences, including stakeholder groups, other scientists, policy makers, and the general public.<br>Note: A field trip outside of class time may be required. Please refer to the department website for scheduling information.<br>Note: This course is offered as GEOG 257 and CMNS 257. Students may take only one of these for credit. |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | (One of CMNS 125, CMNS 175, or ENGL 105) and (GEOG 103 or any 100-level lab science course).                                                                                                                                                                                                                                                                            |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with: <b>CMNS 257</b><br>Dual-listed with:<br>Equivalent course(s): <b>GEOG 211</b><br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                                           |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                                                |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="http://bctransferguide.ca">bctransferguide.ca</a>.)</i><br><input type="checkbox"/> No <input checked="" type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar hours</td> <td style="text-align: center;">39</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td style="text-align: center;">6</td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table>                                                                                                                                                                                                                      | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                   | 39 | Tutorials/workshops |  | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) | 6 | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 39                                                                                                                                                                                                                                                                                                                                                                      |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                       |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>45</b>                                                                                                                                                                                                                                                                                                                                                               |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Maximum enrolment (for information only):</b> 36<br><b>Expected Frequency of Course Offerings:</b><br>Twice each year <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                                             |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Department / Program Head or Director:</b> Jonathan Hughes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Date approved:</b> October 2021                                                                                                                                                                                                                                                                                                                                      |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Date approved:</b> November 5, 2021                                                                                                                                                                                                                                                                                                                                  |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                |    |                     |  |                             |  |                                                              |   |                              |  |                      |  |                    |           |                                                                                                                      |

## Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Describe the science that underlies local, regional, and global environmental issues and challenges.
- Work collaboratively to identify the possible solutions to environmental problems, and the barriers to their implementation.
- Identify principles and practices of effective visual, oral, and written communication of scientific data and ideas for different audiences, including Indigenous communities and environmental advocacy groups.
- Use digital tools and research methods to collect and disseminate qualitative and quantitative data.
- Critique the use of quantitative data and cartographic representations in environmental science.
- Work collaboratively to devise strategies for addressing and communicating environmental challenges.
- Adapt written materials and presentations to inform both generalist and expert audiences on specific issues.

## Prior Learning Assessment and Recognition (PLAR)

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

Course format will typically include lectures delivered by instructors from Geography and Communications, discussion groups, student presentations, and field study. Case studies will support student-directed learning and teaching. There may be a mandatory local field trip that will support one or more case studies. All efforts are made to keep field trips during class time.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

| Author (surname, initials)                            | Title (article, book, journal, etc.)                                                            | Current ed.              | Publisher                | Year |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------|--------------------------|------|
| 1. Hay, Iain, and Giles, Philip                       | Communicating in Geography and the Environmental Sciences                                       | <input type="checkbox"/> | Oxford University Press. | 2015 |
| 2. Berg, Linda, and Hager, Mary.                      | Visualizing Environmental Science                                                               | <input type="checkbox"/> | Wiley                    | 2017 |
| 3. Northey, Margot, David B. Knight, and Diane Draper | Making Sense in Geography and Environmental Sciences. A Student's Guide to Research and Writing | <input type="checkbox"/> | Oxford University Press  | 2019 |

## Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

A field-trip fee may be required.

## Typical Evaluation Methods and Weighting

|                |     |              |     |                   |     |            |      |
|----------------|-----|--------------|-----|-------------------|-----|------------|------|
| Final exam:    | %   | Assignments: | 65% | Field experience: | 10% | Portfolio: | %    |
| Midterm exam:  | %   | Project:     | %   | Practicum:        | %   | Other:     | %    |
| Quizzes/tests: | 25% | Lab work:    | %   | Shop work:        | %   | Total:     | 100% |

## Details (if necessary):

1. Individual weekly quiz: 25%
2. Individual summary of assigned journal articles about the research project identified for the term: 5%
3. Individual report of field experience: 10%
4. Group research proposal: 10%
5. Group video including presentation at CityStudio: 15%
6. Group research paper: 15%
7. Group research poster including presentation in class: 20%

## Typical Course Content and Topics

Topics will be rearranged based on the scheduled needs of the research topic for the term, and each week a chapter in the introductory environmental science text, will be matched with the approaches and issues associated with communicating those issues. For example:

1. Introduction to course and themes in environmental science and environmental communications
2. Science as a way of knowing; environmental history, economics, sustainability and human values
3. Risk analysis and environmental hazards
4. Decision-makers, media, stakeholders, and the science community
5. Ecosystems—functions and evolution
6. Human population change and the environment
7. Energy
8. Air and air pollution; global atmospheric changes
9. Water, water pollution, and freshwater resources
10. The ocean and global fisheries
11. Soils, minerals, and land resources
12. Agriculture and food resources
13. Solid and hazardous wastes; course conclusion



ORIGINAL COURSE IMPLEMENTATION DATE: September 2013  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 06/18/2021

## OFFICIAL UNDERGRADUATE CROSS-LISTED OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course Code and Number:</b> CMNS 257                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                         |
| <b>Course Full Title:</b> Environment: Science and Communications<br><b>Course Short Title:</b> Environment: Science & Comm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                |
| <b>Faculty:</b> Faculty of Humanities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Department:</b> School of Land Use and Environmental Change                                                                                                                                                                                                 |
| <b>Official Course Outline:</b><br>This is a cross-listed course. Please refer to <b>GEOG 257</b> for the official course outline.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                |
| <b>Calendar Description:</b><br>Introduces students to the methods of scientific inquiry and the principles of effective communication in environmental science. Students will apply the scientific method to case studies of environmental issues to highlight challenges and possible solutions at local, regional, and national scales, while exploring the interface between science, politics, and popular perceptions. Students will also use research methods and digital tools to gather and share qualitative and quantitative data with various audiences, including stakeholder groups, other scientists, policy makers, and the general public.<br>Note: A field trip outside of class time may be required. Please refer to the department website for scheduling information.<br>Note: This course is offered as GEOG 257 and CMNS 257. Students may take only one of these for credit. |                                                                                                                                                                                                                                                                |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | (One of CMNS 125, CMNS 175, or ENGL 105) and (GEOG 103 or any 100-level lab science course).                                                                                                                                                                   |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                |
| <b>Antirequisite Courses</b> ( <i>Cannot be taken for additional credit.</i> )<br>Former course code/number:<br>Cross-listed with: <b>GEOG 257</b><br>Equivalent course(s): <b>GEOG 211</b><br>( <i>If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Transfer Credit</b> (See <a href="http://bctransferguide.ca">bctransferguide.ca</a> .)<br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br>( <i>If yes, fill in <a href="#">transfer credit form</a>.</i> ) |
| <b>Department / Program Head or Director:</b> Jonathan Hughes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Date approved:</b> October 2021                                                                                                                                                                                                                             |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Date approved:</b> November 5, 2021                                                                                                                                                                                                                         |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                       |

**Memo for New Course**

To: Lucy Lee, Dean of Faculty of Science

From: Cherie Enns and Rob Newell, School of Land Use and Environmental Change

Date: April 12, 2021

**Subject: Proposal for new course GEOG 260 Global Goals Challenge:** Sustainable Communities by Design (Sustainable Community Design)

Rationale for new course: Introduction to

1. How this new course fits into program(s): This course addresses a current gap in geography and SLUEC programming related to sustainable development and community sustainability. The proposed course examines sustainable development theories and frameworks, such as the UN Sustainable Development Goals and the Planetary Boundaries, with application to the community level working with civic stakeholders. The course responds to interconnected critical issues such as food security, climate change, biodiversity, sustainable community design, community health and livability, and sea-level rising. This course will appeal to non-program students, including international students. The concept of a course designed around a challenge as an applied lab or studio is a pedagogy applied in several of our current planning courses and is increasingly a standard way to teach applied planning and design at an under-graduate level.
2. Explain how the course learning outcomes align with the learning outcomes of the program(s): This course is an added option at the second level that meets civic engagement requirements and general student interest. This second-year course is intended to be another gateway to SLUEC programs, GDS minor and to the proposed Bachelors in Community and Regional Planning<sup>1</sup>. This course will be cross-listed with Plan 200 once the program is approved.
3. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs? GDS is proposing to add the course as a requirement and the course will also be required by the Bachelor in Community and Regional Planning. It may be a useful course for many Arts programs and consultation is in process.
4. Which program areas have been consulted about the course? SLUEC, Agriculture, Indigenous Studies, BIS, FAI, Science Faculty, GDS and proposed school of Global Engagement and Social Justice
5. If a new discipline designation is required, explain why: Not at this time
6. What consideration has been given to indigenizing the curriculum? Indigenous elders and practitioners are to be involved in content delivery. Attention is to be given to equity and diversity aspects of sustainability as well as to conventions such as UNDRIP. In addition, the course will cover concepts such as climate justice, and it use examples such as Northern Indigenous to highlight how critical sustainability issues disproportionately and unequally impact different communities. A virtual

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<sup>1</sup> <https://globalcommunitylab.ca/planning-studio-courses/>

meeting took place and also the course was share with indigenous studies and other indigenous leaders within the broader UFV community.

7. If this course is not eligible for PLAR, explain why:
8. Explain how each of the following will affect the budget for your area or any other area:
  - a. Credit value 3 credits -studio element
  - b. Class size limit. 36 students
  - c. Frequency of offering. Fall and Summer Session each year initially
  - d. Resources required (labs, equipment)NA
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? The nature of field trips will differ depending on how the program is delivered. In the event that the course is delivered in-person, a field trip will involve a local development (such as a Cinema District, park, farmers market or new industrial area) that students will visit and critique its features using a sustainability and equity lens. In the event that the course is delivered online, students will complete a 'virtual field trip' assignment where they will take pictures of a local issue and discuss how it relates and connects to greater sustainability challenges with a focus on SDG 11 or the creation of more inclusive and sustainable communities (e.g., climate change, biodiversity loss, etc.).
10. Estimate of the typical costs for this course, including textbooks and other materials: 40\$





**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2022  
**REVISED COURSE IMPLEMENTATION DATE:**  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2028  
**Course outline form version:** 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|---|-----------------------------|--|--------------------------------------------------------------|----|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> GEOG 260                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                          |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Full Title:</b> Global Goals Studio: Sustainable Communities by Design<br><b>Course Short Title:</b> Sustainable Community Design<br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | <b>Department:</b> School of Land Use and Environmental Change                                                                                                                                                                                                                                                                                  |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Calendar Description:</b><br>Introduction to the critical issues of our times including food security, climate change, biodiversity loss, sea-level rise, and sustainable land use. Exploration of land-based planning policies, scientific data, and concepts of spatial justice required to address global challenges. Applying the lens of UN Sustainable Development Goals, and specifically SDG 11 and Human Rights legislation as a global challenge statement where students work with community partners to design a response to secure more sustainable, equitable, and resilient communities.<br>Note: Field trips outside of class time will be required. Please refer to the department website for scheduling information. |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | 15 university-level credits.                                                                                                                                                                                                                                                                                                                    |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                                                                                                     |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                   |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                        |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="#">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>25</td> </tr> <tr> <td>Tutorials/workshops</td> <td>5</td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td>15</td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table>                                                                                                                                                                                                                        |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                           | 25 | Tutorials/workshops | 5 | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) | 15 | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 25        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5         |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                 |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Maximum enrolment (for information only):</b> 36<br><b>Expected Frequency of Course Offerings:</b><br>Every Semester <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                      |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Jonathan Hughes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Date approved:</b> April 2021                                                                                                                                                                                                                                                                                                                |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Date approved:</b> May 28, 2021                                                                                                                                                                                                                                                                                                              |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                        |    |                     |   |                             |  |                                                              |    |                              |  |                      |  |                    |           |                                                                                                                      |  |

## Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Acknowledge and integrate Indigenous ways of knowing into assessing sustainable development and monitoring UN-Sustainable Development Goals (SDGs) with a focus on climate change, food security, and spatial justice.
2. Identify the key elements of Agenda 2030 and SDGs from a theoretical and practical perspective, and discuss their relevance to the community level.
3. Describe what "sustainability" and "sustainable development" mean in the context of community development and planning, as well as the challenges employing and operationalizing these terms through a social justice lens.
4. Examine local and regional sustainability challenges, policies, and strategies in a manner that recognizes the relationships between social, economic, cultural, political, and environmental systems.
5. Examine sustainability issues and actions at the local level, and recognize their relationships to regional, national, and global scales.
6. Identify, synthesize, and apply key theories and practices that inform the field of sustainable and resilient community development through an equity and diversity lens.
7. Engage in critical thinking on sustainability issues by reflecting on expert presentations (i.e. Indigenous elders, UN officials, local and regional practitioners, seminal researchers, and scholars).
8. Identify the skills, techniques and roles important to addressing global sustainable development challenges at local scales.
9. Work collaboratively with community or civic partners to engage in an innovative partnership to address a sustainable development challenge.
10. Assess one's own ethics and future career goals in relation to UN SDGs and sustainability frameworks.

## Prior Learning Assessment and Recognition (PLAR)

☐ Yes ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

This interactive and participatory course provides opportunities for discussion, problem-solving, debate, and sharing ideas with the involvement of the instructor, special guests, SLUEC faculty, community partners and all students in the class. Each module will include readings and other learning materials, discussed in a seminar format. Preparation for weekly seminars is critical to successful learning and therefore mandatory. Each class will also include dynamic learning activities where students will work with community partners to address a challenge of mutual interest with community partners. The scaffolding assignment outcome could include a local or global response to a sustainability challenge of value to the partners such as a film, website, campaign, policy brief, or report to share their recommendations for action. This course will typically be offered in a condensed semester format. Invitations to Indigenous leaders and community leaders to be given to present and/or propose a course challenge project.

Global experiential learning related to Climate Change Lab and SDG platform is to be integrated into the course as an assignment based on a partnership with world climate simulation lab.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

| Author (surname, initials)                       | Title (article, book, journal, etc.)                                                             | Current ed.                         | Publisher                 | Year |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------|------|
| 1. Breidlid, A. & R. Krovel, ed.                 | Indigenous Knowledges and the Sustainable Development Agenda                                     | <input checked="" type="checkbox"/> | Routledge                 | 2020 |
| 2. Sachs, J.                                     | The Age of Sustainable Development                                                               | <input checked="" type="checkbox"/> | Columbia University Press | 2020 |
| 3. UN General Assembly                           | UN General Assembly. <i>Transforming our World: the 2030 Agenda for Sustainable Development.</i> | <input type="checkbox"/>            | Report No. A/RES/70/1     | 2020 |
| 4. Dale, A.                                      | Edging Forward: Achieving Sustainable Community Development                                      | <input checked="" type="checkbox"/> | Fernweh Press             | 2018 |
| 5. Dale, A., Foon, R., Herbert, Y., & Newell, R. | Community Vitality: From Adaptation to Transformation                                            | <input checked="" type="checkbox"/> | Fernweh Press             | 2014 |

## Typical Evaluation Methods and Weighting

|               |     |              |     |                   |     |            |      |
|---------------|-----|--------------|-----|-------------------|-----|------------|------|
| Final exam:   | %   | Assignments: | 20% | Field experience: | 20% | Portfolio: | %    |
| Midterm exam: | 20% | Project:     | 40% | Practicum:        | %   | Total:     | 100% |

## Typical Course Content and Topics

Module 1: Sustainable development: history of the concept, theory, and frameworks (SDGs) and movements for change  
 Module 2: Sustainable development and systems thinking (interconnected and multi-scalar challenges); introduction to human centered design  
 Modules 3-6: Critical challenges for sustainable community development (climate change, ecosystem health, food security, sense of place, community health, and livability); introduction to community challenge; sustainability challenge focus  
 Module 7: Strategies and approaches to sustainable community development (climate change mitigation and adaptation, green infrastructure, land-use planning, and policy)  
 Module 8: Social capital, empowerment, and participatory processes  
 Module 9-10: Critical community project: human centered design strategy  
 Module 11-13: Project presentations and reflection

**Memo for Course Changes**

To: Lucy Lee

From: Jonathan Hughes, School of Land Use and Environmental Change

Date: December 20, 2021

**Subject: Proposal for revision of GEOG 304: Coasts and Climate Change**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):
  - ☒ Six-year review
  - ☐ Number and/or course code
  - ☒ Credits and/or total hours
  - ☐ Title
  - ☐ Calendar description
  - ☐ Prerequisites and/or co-requisites
  - ☐ Frequency of course offering
  - ☒ Learning outcomes
  - ☒ Delivery methods and/or texts and resource materials
  - ☐ PLAR options, grading system, and/or evaluation methods
  - ☐ Discontinuation of course
  - ☐ Other – Please specify:
2. Rationale for change: The total number of hours was updated to 90 hours to align with other 4-credit Physical Geography courses. *The learning outcomes section of the course was improved by including language to reflect UFV's strategies on Indigenization and on Equity, Diversity, and Inclusion (EDI) and to support these strategies, the "Text and resource materials" section of the course outline was updated with indigenous perspectives specifically on coast management. The learning outcomes have been updated to include only learning outcomes specific to the course.*
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#): N/A
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? N/A
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). *The course outline includes a learning outcome on the discussion of indigenous perspectives on water and land*

and although examples will be included in all units of the course, the students will be required to read “Bridging Indigenous and science-based knowledge in coastal and marine research, monitoring, and management in Canada” by Alexander and other authors in the 2019 volume of *Environmental Evidence* <https://doi.org/10.1186/s13750-019-0181-3> as part of an assignment that will require the students to summarize the different types of knowledge as well as reflect on the benefits and challenges of incorporating indigenous knowledge and local knowledge in environmental research and management in Canada. The assignment will respond to BRP-200.05: “The University is also committed to promoting knowledge of and respect for aboriginal history, language, culture, values and indigenous ways of knowing in its educational, research and service programs, and to including Aboriginal voice in its planning and decision-making.”

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? EDI principles were accomplished in the course through the following.
  - a. Assignment design. Exercises, including field trips were originally written for the average student who can get to Crescent Beach, able to physically use equipment for sampling and measuring variables of coastal erosion, and able to interview the public about coastal management. To be inclusive, the exercises and the field trip will be updated to include versions for students who are not able to physically get to Crescent Beach, or who cannot go and interview the public as part of the assignment. Accommodations for people with special needs such as those on wheelchairs will be available and details will be specified in the syllabus.
  - b. Topic Selection. There is a tendency to focus on the relationship of the IPCC report and what is happening at Crescent Beach, but instructor will make sure what is happening around the world (especially in regions where students in the course may have come from) is also included in the topics of discussion. Climate change is not just local but also global and including stories from different coasts will be more inclusive.
  - c. Curriculum delivery. In the course Blackboard, resources will be available in various forms. For example, each lecture will be provided as a video clip, PowerPoint slides, PDF, and mp3 to accommodate the individual learning styles of students, the different situations where students want to review the lecture materials, and the accessibility/availability of Internet connections.
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc. To support UVF’s strategies on Indigenization and on Equity, Diversity, and Inclusion (EDI), the text and resource materials section was updated to include “Bridging Indigenous and science-based knowledge in coastal and marine research, monitoring, and management in Canada” by Alexander and other authors in the 2019 volume of *Environmental Evidence*. The latest IPCC report was included as the resource material in place of an earlier report.
9. Estimate of the typical costs for this course, including textbooks and other materials: All the resource materials in the course are available free online.

**CWC comment and response:**

- The breakdown of hours appears to include 35 hours for a field trip. Please provide more information on this. What is the expectation for that supervised time?

*The 35 hours of field trip is the total number of hours that students and instructor spend time in the field and includes the following activities with approximate hours:*

- *Orientation meeting is a one-time guided tour and meeting in the field (Crescent Beach) of students and instructor with City of Surrey Coastal Flooding Adaptation Strategy team. By the end of meeting, the students should be able to explain in general the coastal management issues in Crescent Beach, and in particular, to identify specific issues in various locations in Crescent Beach. Approximate duration: **5 hours**.*
- *Geomorphic data collection will be carried out on several days, depending on the tide/storm conditions. The students should be able to measure various physical parameters in the field to model the beach profile and the sediment budget. Approximate duration: **20 hours**.*
- *Students will run a 'pop-up' survey station in Crescent Beach in collaboration with the City of Surrey Coastal Flooding Adaptation Strategy team to assess public perception of climate change and sea level rise. When not staffing the booth, students will work in their groups on their video footage. This will involve walking along beaches adjacent to the water's edge. By the end of these activities, the students should have gathered enough data to gauge the perception of local residents on the threats of climate change and rising sea levels on Crescent Beach. Approximate duration: **5 hours**.*
- *Public presentation in the field (Crescent Beach) of students and instructor with the City of Surrey Coastal Flooding Adaptation Strategy team. By the end of meeting, the students should be able to explain their general recommendations as well as recommendations on specific parts of Crescent Beach. approximate duration is **5 hours**.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** January 2005  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2028  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------|----|---------------------|----|---------------------------|----|--------------------|--|-----------|--|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> GEOG 304                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    | <b>Number of Credits:</b> 4 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Course Full Title:</b> Coasts and Climate Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Course Short Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    | <b>Department:</b> School of Land Use and Environmental Change                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Calendar Description:</b><br>The coastal zone represents one of the most dynamic and complex environments on the earth's surface. This course will investigate the complex interactions between people, coastal processes, and landform zones in times of environmental change and sea-level rise.<br>Note: Field trips outside of regular class times may be required. Please refer to the department website for scheduling information.                                                                                                                                                                                                                |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    | One of the following: GEOG 201, GEOG 202, or GEOG 219/BIO 219.                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                                            |    | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Every other year</b><br>Maximum enrolment (for information only): <b>28</b> |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Experiential (cultural/elder learning or participation)</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Tutorials/workshops</td> <td style="text-align: right;">15</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: right;">35</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;"> <b>Total hours</b> </td> </tr> <tr> <td colspan="2" style="text-align: right;"><b>90</b></td> </tr> </table> |    | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20 | Experiential (cultural/elder learning or participation) | 20 | Tutorials/workshops | 15 | Experiential (field trip) | 35 | <b>Total hours</b> |  | <b>90</b> |  | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| Experiential (cultural/elder learning or participation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 20 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 15 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 35 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>90</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                         |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    | <b>Date approved:</b> November 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    | <b>Date approved:</b> December 3, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                                         |    |                     |    |                           |    |                    |  |           |  |                                                                                               |  |

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Articulate the physical processes operating in the coastal environment.
2. Assess climate change threats facing a coastal community and design strategies to mitigate these problems.
3. Discuss indigenous perspectives of the coastal landscape.
4. Evaluate the roles of various stakeholders in a specific environment and discuss key management concerns.
5. Apply the appropriate geographic skills and techniques (field methods, data analysis, ethics, mapping, GIS, survey design etc.) to solve climate change problems facing a coastal region.
6. Critically reflect upon individual learning from group interactions, in-class discussions, field work, and related research.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|              |     |                   |     |               |     |
|--------------|-----|-------------------|-----|---------------|-----|
| Assignments: | 80% | Field evaluation: | 10% | Participation | 10% |
|              | %   |                   | %   |               | %   |

**Details:**

As a course built on problem-based learning, assignments will be the dominant form of evaluation and will include a scientific report (40%), educational video (20%) and handout (10%), and reflective journal (10%).

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description                 | Title and publication/access details                                                                                 | Year |
|-------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------|------|
| 1. Textbook | Alexander et. al.                     | Bridging Indigenous and science-based knowledge in coastal and marine research, monitoring, and management in Canada | 2019 |
| 2. Textbook | Alexander, K., Ryan, A. & Measham, T. | Managed retreat of coastal communities: understanding responses to sea level rise                                    | 2012 |
| 3. Textbook | Government of British Columbia        | Guidelines for Management of Coastal Flood Hazard Use                                                                | 2011 |
| 4. Textbook | Government of British Columbia        | Sea level rise adaptation primer                                                                                     | 2013 |
| 5. Textbook | IPCC                                  | Sixth Assessment Report, Climate Change 2021: The Physical Science Basis                                             | 2021 |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

There may be a fee for field trip costs for this course.

**Course Content and Topics**

This course will be offered using a modified problem-based learning strategy and as such much of the learning and content of the course will be largely determined by the students. Students will be introduced to a real-world problem at the beginning of the course and will then be responsible for determining the strategies and content required to meet the course learning outcomes while answering the posed question. Real world problems will investigate coastal issues in the local area and will be supported by field work. Short mini lessons on key topics may be given by the instructor to guide the students' learning at the request of the students with the remainder of the content resulting from student investigation of the topic. The instructor will facilitate the learning environment and provide key direction, mini lessons, and background information. The content covered will be based on student investigation and a weekly breakdown is not possible (due to the PBL delivery mode). Topics likely to be covered include:

- Coastal processes (waves, currents, tides)
- Coastal landforms
- Sediment transport
- Climate change predictions
- Human impact on the coast
- Coastal management
- Field survey methods
- Ethics and social science survey design
- Data analysis



**Memo for New Course**

To: Lucy Lee

From: Jonathan Hughes, School of Land Use and Environmental Change

Date: November 22, 2021

**Subject: Proposal for new course GEOG 358- Forensic GIS**

*There is an expectation that all new courses will meet the Guidelines for Quality Curriculum, including principles of Universal Design for Learning (UDL) and Equity, Diversity, and Inclusion (EDI).*

1. Rationale for new course, including how this course fits into the program(s):

**Note:** Adding this course to a program will usually require a program change request.

- *GEOG 300N – Forensic GIS, has been offered successfully for five consecutive years with good enrollment, and it now needs a regular course number as GEOG 358 – Forensic GIS*
  - *The course will remain at 4 credits, but the total hours was updated to 90 hours to align with all 4 credit GIS courses*
  - *The learning outcomes section of the course was improved by adding a learning outcome to reflect UFV's strategies on Indigenization, and to support the strategy, the "Text and resource materials" section of the course outline was also updated.*
  - *Strategies were included to reflect principles of EDI.*
2. Explain how the course learning outcomes align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#): *The additional learning on indigenisation is not a substantial change in the learning outcome and aligns with ILO 2: Analyze critically and imaginatively and ILO 4: Use knowledge and skills proficiently.*
  3. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs? *N/A*
  4. Which program areas have been consulted about the course? *The School of Criminology and Criminal Justice as well as the Department of Biology were consulted. Both program areas support proposed change in course number and code.*
  5. If a new discipline designation is required, explain why: *N/A*
  6. In what ways does this course contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). *The course outline includes a learning outcome on the discussion of indigenous perspectives in crime mapping. The students will be required to carry out a GIS exercise on crime mapping and spatial statistics. Using Statistics Canada's data on incarceration, the students should be able to answer the question "Are Indigenous people*



*over-represented in Canada's prisons?" After reading the research of Owusu-Bempah and Luscombe (2020), the students should be able to discuss alternative ways of addressing the over-representation of Indigenous people in Canada's prisons. This GIS mapping exercise contributes to UFV's response to BRP-200.05: "The University is also committed to promoting knowledge of and respect for aboriginal history, language, culture, values and indigenous ways of knowing in its educational, research and service programs, and to including Aboriginal voice in its planning and decision-making."*

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *EDI principles will be accomplished in the course through the following.*
  - a. Assignment design. *The GIS exercises will be reviewed to identify if there are themes that will make groups of students unnecessarily be uncomfortable, and if there are, these themes will be updated to reflect principles of EDI. Furthermore, accommodations will be explicitly written on the syllabus for students who are unable to visit the project site or who are unable to talk to the public during field work.*
  - b. Topic Selection. *Wherever possible, the topics for the GIS exercises will be selected based on the need of the GIS skill in the completion of the CityStudio challenge deliverables, but also the opportunity to associate it with the question whether there is reason to believe that indigenous and visible minorities are over-represented in the geographical location where the crimes were reported. For example, the GIS exercise on Spatial Statistics will be updated to include tasks where exercise results can be compared to the results of Owusu-Bempah and Luscombe (2020).*
  - c. Curriculum delivery. *In the course Blackboard, resources will be available in various forms. For example, each lecture will be provided as a video clip, PowerPoint slides, PDF, and mp3 to accommodate the individual learning styles of students, the different situations where students want to review the lecture materials, and the accessibility/availability of Internet connections.*
  - d. Other methods. *Whatever delivery method is followed, the ArcGIS software should be accessible remotely and video tutorials of GIS tasks will be included in Blackboard.*
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.: N/A
9. Estimate of the typical costs for this course, including textbooks and other materials: *Two textbooks, one in hardcopy format costs 31.38 CAD while the second as an e-book is 107.60 CAD.*



ORIGINAL COURSE IMPLEMENTATION DATE: September 2022  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------|----|--------------------------------------------|----|---------------------|----|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> GEOG 358                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Number of Credits:</b> 4 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Forensic Geographic Information Systems                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Forensic GIS                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Department:</b> School of Land Use and Environmental Change                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Concepts in crime mapping, environmental criminology, and geographic profiling will be investigated through the application of spatial analysis techniques and Geography Informational Systems (GIS).<br>Note: Field trips outside of class time may be required. Please refer to the department website for scheduling information.                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                               |           | 45 university-level credits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                 |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                             |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>             |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Winter only</b><br>Maximum enrolment (for information only): <b>28</b> |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar</td> <td>20</td> </tr> <tr> <td>Experiential (field trip)</td> <td>10</td> </tr> <tr> <td>Supervised laboratory hours (computer lab)</td> <td>45</td> </tr> <tr> <td>Tutorials/workshops</td> <td>15</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>90</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20 | Experiential (field trip) | 10 | Supervised laboratory hours (computer lab) | 45 | Tutorials/workshops | 15 |  |  | <b>Total hours</b> | <b>90</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                               | 20        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                     | 10        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (computer lab)                                                                                                                                                                                                                                                                                                                                                                    | 45        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                           | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                            | <b>90</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                   |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                   |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date approved:</b> November 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Date approved:</b> December 3, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                           |    |                                            |    |                     |    |  |  |                    |           |                                                                                               |  |

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Describe how information related to forensic science is represented and managed on computers as GIS data.
2. Provide written, verbal, and visual explanation of the core concepts of forensic GIS.
3. Critically examine the application of GIS as a tool in forensic investigations through field work in a community, and library research techniques.
4. Demonstrate competency in the operation of the latest version of ArcGIS in forensic investigation.
5. Present findings on the applicability of GIS in helping prevent criminality in a local and regional setting.
6. Integrate primary and secondary geographic data in cartographic form to support investigations into a real-world project on crime prevention, reduction, and enforcement.
7. Discuss Indigenous perspectives in Forensic GIS and crime mapping.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|                |     |              |     |          |     |
|----------------|-----|--------------|-----|----------|-----|
| Final exam:    | 15% | Assignments: | 25% | Project: | 25% |
| Quizzes/tests: | 35% |              | %   |          | %   |

**Details:**

GEOG 358 is primarily a lecture and seminar course. Students will be expected to read a sizable portion of the course reading list, critically research, assess, and summarize material, and present reflections and conclusions in class. Depending on course content, fieldwork will likely be expected. Depending on course content, lab work may also be required.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description            | Title and publication/access details                                                                         | Year |
|-------------|----------------------------------|--------------------------------------------------------------------------------------------------------------|------|
| 1. Textbook | Chainey, S. and Radcliffe, J.    | GIS and Crime Mapping                                                                                        | 2005 |
| 2. Textbook | Santos, R.                       | Crime and Analysis with Crime Mapping                                                                        | 2016 |
| 3. Textbook | Chainey, S., & Thompson, L.      | Crime Mapping Case Studies                                                                                   | 2007 |
| 4. Textbook | National Institute of Justice    | Crime Mapping Analysis Program                                                                               | 2007 |
| 5. Textbook | Owusu-Nempah, A., & Luscombe, A. | Race, cannabis, and the Canadian war on drugs: An examination of Cannabis arrest data by race in five cities | 2020 |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

Courses in Geography may have mandatory field trips with additional fees. Details are available on course outlines distributed in class.

**Course Content and Topics**

This applied GIS course will be offered using a modified problem-based learning strategy where a project which may be part of CityStudio challenge such as criminality in local parks or environmental criminology in local strip malls will be the theme of the problem-based learning. Although the students will be using real crime data in the lab exercises, when they apply their learning from the lab exercises to their project, they will be conducting research about the local area, search for secondary crime data or gather primary crime data that can be used in solving the issues raised in the theme and in completing expected deliverables of the CityStudio challenge. Short mini lessons on key topics may be given by the instructor as special GIS techniques that might be necessary to complete the deliverables. The instructor will facilitate the learning environment and provide key direction, mini lessons, and background information.

Topics likely to be covered include:

- Introduction to crime mapping and ArcGIS
- GIS and the criminal justice system
- Effective crime map design and layout
- Geocoding crime data and standard query language, and geodatabases
- Forensic geology, forensic limnology, and isoforensics
- Forensic palynology, forensic botany, and forensic mycology
- Preparing crime data for analysis using geoprocessing
- Analyzing crime data through spatial statistics
- Crime hotspots analysis
- Geographic profiling

**Memo for Course Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: 2021/11/12

**Subject: Proposal for revision of ELTR 100 – Electrical Network Analysis**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

This course was originally intended to replace the first module of the Electronics Technician Common Core program, which was a full-time day training program. The new format of the course has significantly decreased lecture hours compared to the old format. This has been found to be less than adequate in terms of providing students with time for experiential learning exercises and reviewing of cumulative material.

The material covered in this course is foundational to the rest of the Electronics, Automation and Digital Manufacturing programs. To ensure that adequate time is spent on these topics, some of it will be removed from this course and moved to a new course (ELTR 105) designed such that it can be taken either concurrently or as a follow-up to this course.

By moving some of the material into a new course, students will have more experiential time with the material. The intention for this change is that it will allow students more time to solidify their understanding of these foundational concepts and see more success in the program overall.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

Changes to the learning outcomes consist only of removing those related to the new course (ELTR 105). No significant changes are being made to those learning outcomes which will remain a part of this course.

Any outcomes which have been rewritten have only changed such that they reflect the specific context of the course changes (direct current electrical networks) as opposed to the more general context of the old format (direct current and alternating current electrical networks).

Any outcomes which have been removed pertain only to the new course (ELTR 105).

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

This course is only required for Electronics Department programs: Electronics Technician certificate, Automation & Robotics diploma, and Digital Manufacturing diploma.

5. Which program areas have been consulted about the change(s)?

Electronics/Automation & Robotics

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to identify and incorporate indigenous ways of knowing into instruction and course content whenever possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the faculty of applied and technical studies.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and application from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the Faculty of Applied and Technical Studies.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials:

No changes from the original course format.

**CWC comments and responses (all ELTR courses):**

- Memo question #6: Screening appreciates the effort that has been put into this response, but would also like to see responses that are specific to each course rather than a single statement for all courses. UEC would like to see recognition of areas within some of the individual courses where Indigenization can be more explicitly expressed.

*As a department we value the importance of Indigenization of curricula at UFV. We are still in a stage where we are trying to better understand Indigenous ways of knowing and how to best incorporate into an applied technical program such as Electronics and Automation and Robotics. As such, we have suggested some specific ways to do so (see revised Memos for ELTR 110 and 217)). We also commit to reaching out to the Teaching and Learning Centre for additional course-specific ideas and guidance.*

- Memo question #7: Screening suggests also including specific recognition of how accessibility issues are addressed in the field (reference B.C. building code, design of applications, etc.).

*To further reflect the commitment to Equity, Diversity and Inclusion in curriculum design and delivery, we will engage in further learning, such as TLC's micro-courses on Universal Design for Learning (UDL) and Inclusive Learning. Some course specific comments are also provided (see revised Memos for ELTR 110 and 217).*

- Please provide a brief explanation for why course hours vary from 45 to 60 hours, even though all courses are 3 credits.

*We followed the accepted rule that indicated a credit to about 15 hours of course class. Labs are normally evaluated at half credit for same time period. Based on this, the 50 hours still would fall within the 3 credits, and the same for ELTR 216, which is project/lab course. 5 hours were added to the ELTR 100 class for additional hand on work, while staying within the 3 credit requirements. If that is not possible we would be willing to drop it lower. However, we believe we are still within the accepted margin.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2020  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2026  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------|----|--|--|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ELTR 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Electrical Network Analysis: Direct Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Elec. Network Analysis: DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Covers fundamentals of electricity and electronics related to direct current electricity. Concepts and principles related to the understanding of passive and active components, devices, and circuits are covered. Students will learn to build, analyze, and troubleshoot circuits using typical technician work bench equipment such as multimeters and power supply units.                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | Admission to the Electronics Technician certificate.                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                      |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Fall only</b><br>Maximum enrolment (for information only): <b>36</b> |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">35</td> </tr> <tr> <td>Supervised laboratory hours (design lab)</td> <td style="text-align: center;">15</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: center;"><b>50</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 35 | Supervised laboratory hours (design lab) | 15 |  |  |  |  |  |  |  |  | <b>Total hours</b> | <b>50</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 35        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>50</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> November 9, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Analyze the characteristics of and relationship between basic electrical quantities (resistance, current, voltage, charge, power).
2. Explain the differences and relationships between different circuit types (series, parallel, series-parallel).
3. Safely and competently operate power supply.
4. Safely and competently operate measurement equipment.
5. Employ common network theorems and analysis techniques for circuit analysis (superposition, maximum power transfer, Kirchhoff's Laws, Thevenin's theorem, Norton's theorem, mesh current analysis, nodal analysis).
6. Design, analyze, and test basic linear networks.
7. Explain how alternating voltage is generated.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|             |     |                |     |   |
|-------------|-----|----------------|-----|---|
| Final exam: | 40% | Quizzes/tests: | 30% | % |
|             | %   | Lab work:      | 30% | % |

**Details:**

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description | Title and publication/access details | Year |
|-------------|-----------------------|--------------------------------------|------|
| 1. Textbook | Russell L. Meade      | Foundations of Electronics           | 2017 |
| 2.          |                       |                                      |      |
| 3.          |                       |                                      |      |
| 4.          |                       |                                      |      |
| 5.          |                       |                                      |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

Breadboard, safety glasses, needle-nose pliers, ESD wristband.

**Course Content and Topics**

- Basic concepts of electricity
- Electrical quantities, electrical components
- Ohm's Law, Kirchhoff's Laws, series circuits, parallel circuits, series-parallel circuits
- Network theorems, networks analysis techniques (Thevenin's Theorem, Norton's Theorem, mesh analysis, maximum power theorem, nodal analysis)
- Measuring instruments
- Inductor, capacitor and RLC circuits analysis



**Memo for New Course**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: 2021/11/12

**Subject: Proposal for new course ELTR 105 - Electrical Network Analysis: Alternating Current**

*There is an expectation that all new courses will meet the Guidelines for Quality Curriculum, including principles of Universal Design for Learning (UDL) and Equity, Diversity, and Inclusion (EDI).*

1. Rationale for new course, including how this course fits into the program(s):

This course is being created to contain material that has been removed from ELTR 100 (Electrical Network Analysis). The intention is to increase the amount of contact time spent on this material, as well as the amount of lecture time available for experiential learning exercises.

The material covered in this course is foundational to the rest of the Electronics, Automation and Digital Manufacturing programs. To ensure that adequate time is spent on these topics, some of it has been moved from ELTR 100 to a new course. This course is designed such that it can be taken either concurrently or as a follow-up to ELTR 100.

By moving some of the material into a new course, students will have more experiential time with the material. The intention for this change is that it will allow students more time to solidify their understanding of these foundational concepts and see more success in the program overall.

2. Explain how the course learning outcomes align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

All learning outcomes of this course are imported directly from ELTR 100 (under its previous format) and as such continue to align with program outcomes and ILOs.

Any outcomes which have been rewritten have only changed such that they reflect the specific context of the course changes (alternating current electrical networks) as opposed to the more general context of the old format (direct current and alternating current electrical networks).

3. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs?

This course is only required for Electronics Department programs: Electronics Technician certificate, Automation & Robotics diploma, and Digital Manufacturing diploma.

4. Which program areas have been consulted about the course?

Electronics/Automation & Robotics

5. If a new discipline designation is required, explain why:

N/A

6. In what ways does this course contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to identify and incorporate indigenous ways of knowing into instruction and course content whenever possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the faculty of applied and technical studies.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and application from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the faculty of applied and technical studies.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.):

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials:

This course will not incur any additional cost to the student.

All required textbooks and materials are identical to those required for ELTR 100 (which is a pre/co-requisite for this course).



ORIGINAL COURSE IMPLEMENTATION DATE: September 2022  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ELTR 105                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Electrical Network Analysis: Alternating Current                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Elec. Network Analysis: AC                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Covers fundamentals of electricity and electronics related to alternating current electricity. Concepts and principles related to the understanding of passive and active components, devices, and circuits are covered. Students will learn to build, analyze, and troubleshoot circuits using typical technician's equipment such as multimeters, oscilloscopes, and function generators.                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | ELTR 100.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                   |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Fall only</b><br>Maximum enrolment (for information only): <b>36</b> |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: right;">35</td> </tr> <tr> <td>Supervised laboratory hours (science lab)</td> <td style="text-align: right;">15</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: right;"><b>50</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 35 | Supervised laboratory hours (science lab) | 15 |  |  |  |  |  |  | <b>Total hours</b> | <b>50</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 35        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (science lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>50</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                         |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Date of meeting:</b> November 9, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

**ELTR 105**

**University of the Fraser Valley Official Undergraduate Course Outline**

**Page 2 of 2**

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Analyze the characteristics of and relationship between basic electrical quantities (resistance, inductance, reactance, current, voltage, charge, power).
2. Examine the behaviors and characteristics of alternating current (waveforms, periods, frequency, phase angle).
3. Analyze the effects of, and relationships between, reactance, resistance, and impedance.
4. Explain the differences and relationships between different circuit types (series, parallel, series-parallel).
5. Safely and competently operate power supply equipment (AC, function generators).
6. Safely and competently operate measurement equipment (multimeters, oscilloscopes).
7. Design, analyze, and test basic linear AC networks.
8. Explain how alternating voltage is generated.
9. Apply principles of magnetism and electromagnetism.
10. Analyze simple magnetic circuits.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|           |     |                |     |             |     |
|-----------|-----|----------------|-----|-------------|-----|
| Lab work: | 30% | Quizzes/tests: | 30% | Final exam: | 40% |
|           | %   |                | %   |             | %   |

**Details:**

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description              | Title and publication/access details         | Year |
|-------------|------------------------------------|----------------------------------------------|------|
| 1. Textbook | Floyd, Thomas L & Buchla, David M. | Electronics Fundamentals: A Systems Approach | 2014 |
| 2.          |                                    |                                              |      |
| 3.          |                                    |                                              |      |
| 4.          |                                    |                                              |      |
| 5.          |                                    |                                              |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

Breadboard, safety glasses, needle-nose pliers, ESD wristband

**Course Content and Topics**

- Electromagnetism
- AC generation
- Oscilloscopes
- Resistive AC circuits
- Inductive reactance, RL circuits
- Transformer action
- Capacitive reactance, RC circuits
- RLC circuits and resonance

**Memo for Course Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: Oct 7<sup>th</sup>, 2021

**Subject: Proposal for revision of ELTR 110 (Automation and Control Systems Project)**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

Original format of the course was focused on actual printed circuit board design, design tools and fabrication. Although it is useful to know, it is too specialized and matches an engineer's work level of expectations. Changes are signed to match a technologist diploma level of lab work by removing the more in-depth PCB manufacturing and working on methods and tools relevant to a technician/technologist level, including wiring methods and consideration which were eliminated from ELTR 170. This will improve the understanding and quality of our graduates.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

The original learning outcomes have not changed substantially. Additional outcomes were added as enhancement of skills for graduates. New outcomes align with original ILOs before changes were made.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

This course is only required by Electronics students in Applied and Technical Studies.

5. Which program areas have been consulted about the change(s)?

Electronics/Automation and Robotics

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to identify and incorporate Indigenous ways of knowing into instruction and course content whenever possible, such as through potential project collaboration with Indigenous groups/companies to complete project course work in all technology programs within the Faculty of Applied and Technical Studies. As a foundational course in a program that prepares students for technical service positions, examples of working with Indigenous communities and clients will be provided.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and application from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the Faculty of Applied and Technical Studies. For this particular course, consideration will be given to how the Electronics field can contribute to advancing accessibility through electronic manufacturing practices and techniques. The topic of Workplace Safety will include information on accessibility and safety guidelines.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials

No change form original course format.



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2020  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2026  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|
| <b>Course Code and Number:</b> ELTR 110                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Course Full Title:</b> Electronics Manufacturing Processes<br><b>Course Short Title:</b> Electronics Manufacturing                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Calendar Description:</b><br>The basics of electronic manufacturing practices and techniques. Topics include electronics assembly/repair tools and methods, common wiring tools and wiring practice, safe procedures and wiring standards in multiple work environments, the importance of proper wiring and routing, and the results of common wiring mistakes. IPC standards and safe work place practices will be emphasized.                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ELTR 100.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                 | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Fall only</b><br>Maximum enrolment (for information only): <b>36</b> |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">Lecture/seminar</td> <td style="width: 20%; text-align: center;">15</td> </tr> <tr> <td>Supervised laboratory hours (design lab)</td> <td style="text-align: center;">30</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 15 | Supervised laboratory hours (design lab) | 30 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>45</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Date of meeting:</b> November 9, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |

**ELTR 110**

**University of the Fraser Valley Official Undergraduate Course Outline**

**Page 2 of 2**

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Use computer aided design to produce a printed circuit board layout for given/any schematic.
2. Hand solder through hole and surface mount components on PCB.
3. Adjust, align, replace, or repair electronic circuit and assemblies.
4. Apply general safe work practices when working with hazardous products.
5. Practice the use of common industry wiring tools such as crimper.
6. Create harnesses and route wiring bases on job specifications.
7. Investigate effects of noise and Ground loops.
8. Investigate electrical noise, shielding, grounding, wiring and isolation solutions.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|                |     |           |     |   |
|----------------|-----|-----------|-----|---|
| Quizzes/tests: | 25% | Lab work: | 50% | % |
| Assignments:   | 25% |           | %   | % |

**Details:**

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type | Author or description | Title and publication/access details | Year |
|------|-----------------------|--------------------------------------|------|
| 1.   | No textbook required  |                                      |      |
| 2.   |                       |                                      |      |
| 3.   |                       |                                      |      |
| 4.   |                       |                                      |      |
| 5.   |                       |                                      |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

**Course Content and Topics**

Students will use wire strippers and crimper and practice industry accepted wiring techniques. Students will mostly be using the tools and will be evaluated based on the quality of work assigned.

- Unit 1 - Workplace Safety
- Unit 2 - Hand soldering Through-hole and surface mount components
- Unit 3 - PCB Manufacturing process and considerations
- Unit 4 - Introduction to Layout and schematic capture software
- Unit 5 - Wires, Wire selection and Wire routing



**Memo for Course Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: 2021/11/12

**Subject: Proposal for revision of ELTR 150 – Solid State Semiconductor Devices**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

We are adding a course to the program (ELTR 105) which contains material from another pre/co-requisite course (ELTR 100). As such the pre/co-requisites for this course will need to be adjusted.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

No changes to learning outcomes.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

This course is only required for Electronics Department programs: Electronics Technician certificate, Automation & Robotics diploma, and Digital Manufacturing diploma.

5. Which program areas have been consulted about the change(s)?

Electronics/Automation

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or

other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to identify and incorporate indigenous ways of knowing into instruction and course content whenever possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the Faculty of Applied and Technical Studies.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and application from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the Faculty of Applied and Technical Studies.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials:

No changes from the original course format.



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2020  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2026  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|
| <b>Course Code and Number:</b> ELTR 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Course Full Title:</b> Solid State Electronic Devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Course Short Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Calendar Description:</b><br>Introduction to semiconductor devices and their applications. This course explains how electronic circuits work and how to analyze, design, modify, and combine them to perform complex functions. Students will analyze and design common operational amplifier (op-amp) circuits and examine the op-amps non-ideal characteristics in terms of circuit performance.                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ELTR 100 and ELTR 105.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Antirequisite Courses</b> ( <i>Cannot be taken for additional credit.</i> )<br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                               | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Winter only</b><br>Maximum enrolment (for information only): <b>36</b> |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">Lecture/seminar</td> <td style="width: 20%; text-align: center;">30</td> </tr> <tr> <td>Supervised laboratory hours (design lab)</td> <td style="text-align: center;">15</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 30 | Supervised laboratory hours (design lab) | 15 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>45</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Transfer Credit</b> ( <i>See <a href="#">bctransferguide.ca</a>.</i> )<br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                   |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Date of meeting:</b> November 9, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |

ELTR 150

University of the Fraser Valley Official Undergraduate Course Outline

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**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Describe and analyze the electrical characteristics of diodes, BJT, JFET and MOSFET.
2. Analyze the different Transistor biasing techniques and calculate bias voltages and currents.
3. Analyze BJT/ MOSFET both as amplifier and switch.
4. Describe and measure important specifications of op-amps.
5. Analyze the frequency response of amplifiers using common test equipment.
6. Analyze positive and negative feedback with operational amplifiers and other circuits.
7. Design and test regulated power supply circuit.
8. Explain the design and application of active filters.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|              |     |                |     |   |
|--------------|-----|----------------|-----|---|
| Final exam:  | 40% | Quizzes/tests: | 20% | % |
| Assignments: | 10% | Lab work:      | 30% | % |

**Details:**

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description | Title and publication/access details       | Year |
|-------------|-----------------------|--------------------------------------------|------|
| 1. Textbook | Thomas L. Floyd       | Electronic Devices (Electron flow version) | 2017 |
| 2.          |                       |                                            |      |
| 3.          |                       |                                            |      |
| 4.          |                       |                                            |      |
| 5.          |                       |                                            |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

**Course Content and Topics**

- Semiconductors
- Diodes, diode applications, special action diodes, diode biasing
- Bipolar Junction Transistors (BJTs), transistor biasing
- BJT amplifiers, BJT power amplifiers, multistage amplifiers, differential amplifier
- Field Effect Transistors (FETs), FET amplifiers, amplifier frequency response
- Thyristors, silicon-controlled rectifiers, diacs, triacs, unijunction transistors
- Operational amplifiers, op-amp circuits
- Active filters, oscillators, voltage regulators

**Memo for Course Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: Oct 7<sup>th</sup>, 2021

**Subject: Proposal for revision of ELTR 170 (Electronic System Integration)**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

The course is offered in the second term of the first-year electronics. The course introduces students to basic and common types of home automation configurations. The department aims to replace it with a different course that will have better contribution to students knowledge, especially in advancing their skills to improve their chances of success in a second-year specialty technology programs.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

The course (ELTR 105) replacing this course will provide better learning outcomes.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

This course is only required by Electronics first year Students in applied and technical studies.

5. Which program areas have been consulted about the change(s)?

Electronics/Automation and Robotics

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

N/A

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods

N/A

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials:

N/A

**Memo for Course Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: Oct 7<sup>th</sup>, 2021

**Subject: Proposal for revision of ELTR 202 (Microprocessors/Microcontrollers and Data Acquisition)**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

This course is part of the Automation and Robotics program which is going into a new format. In the new format, another course on microcontrollers was added (ELTR 252 -Microcontrollers II) in consideration for reducing the amount of material in ELTR 202, credits and hours. Some material covered in the original ELTR 202 will be spread over the two above mentioned courses with some additional material included in ELTR 252.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

The learning outcomes have not changed substantially. Outcomes are reflecting a simplified course and the outcomes removed were incorporated on the second level, namely, course ELTR 252.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

This course is only required by Automation and Robotics students in Applied and Technical Studies.

5. Which program areas have been consulted about the change(s)?

Electronics/Automation and Robotics

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to identify and incorporate indigenous ways of knowing into instruction and course content whenever possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the Faculty of Applied and Technical Studies.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and applications from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the Faculty of Applied and Technical studies.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials:

No change form original course format





**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2015  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): December 2020  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ELTR 202                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Microprocessors/Microcontrollers and Data Acquisition                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Microprocessors/Microcontroll.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Introduction to small microprocessor-based systems. Develop "C" programming and Assembly programming. Interfacing digital and analog signals with a computer-based system using common protocols and wireless/remote applications. Interface with common sensors and transducers.                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | Admission to the Automation and Robotics Technician diploma program or department permission.                                                                                                                                                                                                                                                                                                                                                                                                |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                 |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Winter only</b><br>Maximum enrolment (for information only): <b>24</b> |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">30</td> </tr> <tr> <td>Supervised laboratory hours (design lab)</td> <td style="text-align: center;">20</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>50</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 30 | Supervised laboratory hours (design lab) | 20 |  |  |  |  |  |  | <b>Total hours</b> | <b>50</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 20        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>50</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> November 9, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

**ELTR 202**
**University of the Fraser Valley Official Undergraduate Course Outline**
**Page 2 of 2**
**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Describe architecture of common microprocessors/controllers.
2. Program in C language, exposing students to various fundamental programming and interfacing techniques.
3. Investigate small microprocessor-based systems, with an emphasis on embedded system hardware and software design.
4. Demonstrate debugging techniques for microcontroller programs, including breakpoints, status, readouts, single-stepping, and crash dumps. Learn to debug hardware/software interaction problems.
5. Interface to I/O and interrupt handling methods.
6. Interface with digital and analog signals.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|             |     |                |     |   |
|-------------|-----|----------------|-----|---|
| Final exam: | 50% | Quizzes/tests: | 20% | % |
|             | %   | Lab work:      | 30% | % |

**Details:**
**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**
**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description | Title and publication/access details                                               | Year |
|-------------|-----------------------|------------------------------------------------------------------------------------|------|
| 1. Textbook | Han-Way Huang         | PIC Microcontroller: An Introduction to Software and Hardware Interfacing / Delmar | 2004 |
| 2.          |                       |                                                                                    |      |
| 3.          |                       |                                                                                    |      |
| 4.          |                       |                                                                                    |      |
| 5.          |                       |                                                                                    |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*
**Course Content and Topics**

Unit 1: Basic programming concepts in Assembly and C  
 Unit 2: Hardware interface: sensors  
 Unit 3: Hardware interface: Controllers and Actuators  
 Unit 4: Data collection systems and methods  
 Unit 5: Analog and digital signals

**Memo for Course Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: Oct 7<sup>th</sup>, 2021

**Subject: Proposal for revision of ELTR 216 (Automation and Control Systems Project)**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

The course is part of a program initially built to support agriculture technology. Removal of the specific word agriculture is meant to show support and open the program to other students in other industries who seek further skills in automation and robotics. This will provide a better course offerings and wider target audience to enhance registration.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

The learning outcomes have not changed substantially. The single change to outcomes is the removal of the specific word agriculture to widen the scope of the outcomes.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

This course is only required by Automation and Robotics students in Applied and Technical Studies.

5. Which program areas have been consulted about the change(s)?

Electronics/Automation and Robotics

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to identify and incorporate indigenous ways of knowing into instruction and course content whenever possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the faculty of applied and technical studies.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and applications from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the Faculty of Applied and Technical Studies.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

N/A

9. Estimate of the typical costs for this course, including textbooks and other materials:

No change form original course format.



ORIGINAL COURSE IMPLEMENTATION DATE: September 2015  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): December 2020  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--|--|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ELTR 216                                                                                                                                                                                                                                                                                                                                                           |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                    |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Automation and Control Systems Project                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Automation and Control Systems                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                          |           | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                              |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Apply knowledge gained in the program to design, construct, and demonstrate a fully functional application-based automated system. Projects contain elements and components in pneumatics controls, robotic arm manipulation, PLC programming, sensors, actuators, and microcontrollers                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                   |           | Admission to the Automation and Robotics Technician diploma program or department permission.                                                                                                                                                                                                                                                                                                                                                                                             |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                     |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                 |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i> |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>20</b> |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Supervised laboratory hours (design lab)</td> <td>60</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td><b>60</b></td> </tr> </table>                                                |           | Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 60 |  |  |  |  |  |  |  |  | <b>Total hours</b> | <b>60</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                          | 60        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                | <b>60</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                       |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                  |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> November 9, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |  |  |  |  |  |  |  |  |                    |           |                                                                                               |  |

ELTR 216

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Construct a fully automated system and apply it to a real-world application model.
2. Integrate various sensors for specific tasks.
3. Control actuators such as motors, and solenoid valves.
4. Integrate industrial PLC into automated system.
5. Integrate Robotic Arm into an automated process.
6. Work in teams.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|          |     |           |     |  |   |
|----------|-----|-----------|-----|--|---|
| Project: | 50% | Lab work: | 50% |  | % |
|          |     |           | %   |  | % |

**Details:**

Project must include elements of Pneumatics, sensors, PLC and Robotic arm. Specific interaction of the elements will be determined by the project selected by the students.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type | Author or description | Title and publication/access details | Year |
|------|-----------------------|--------------------------------------|------|
| 1.   | No text is required   |                                      |      |
| 2.   |                       |                                      |      |
| 3.   |                       |                                      |      |
| 4.   |                       |                                      |      |
| 5.   |                       |                                      |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

**Course Content and Topics**

Specifications for the project will be derived from student project interest and/or from collaboration with related industry.

This is a capstone project.

**Memo for New Course**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: Oct 7th, 2021

**Subject: Proposal for new course ELTR 217 Robotics**

*There is an expectation that all new courses will meet the Guidelines for Quality Curriculum, including principles of Universal Design for Learning (UDL) and Equity, Diversity, and Inclusion (EDI).*

1. Rationale for new course, including how this course fits into the program(s):

The course is offered in the second term of the second year Automation and Robotics. Current total credits for the term stand at 14, with 4 course offerings. Financial Aid advised that for students to qualify for financial aid, there must be 15 credits offered. Rather than expanding one of the courses to a heavier load, the department feels students are better served with more course offerings to enrich their knowledge. To do so, we are moving the portion of KUKA robot teaching from ELTR 216 (Capstone project), into this course and adding a second robot option, namely ABB. This will allow students to be trained on robots from two leading industry robotic manufacturers, expanding on their employment options, while freeing more time to concentrate on the capstone project.

***Note:** Adding this course to a program will usually require a program change request.*

2. Explain how the course learning outcomes align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

It is an expansion of existing course offerings in the Automation and Robotics program (ELTR 216). It will further enhance outcomes to include more equipment selection and meets the same ILO's of the ELTR 216 course.

3. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs?

This course is only required by the Automation and Robotics Diploma program.

4. Which program areas have been consulted about the course?

Electronics/Automation and Robotics/Digital Manufacturing.

5. If a new discipline designation is required, explain why:

N/A

6. In what ways does this course contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Instructors are encouraged to add Indigenous material when possible, and to find potential project collaboration with Indigenous groups/companies to complete project course work in all technology programs within the Faculty of Applied and Technical Studies. This capstone course focused on programming and operating a robotic arm allows for an introduction of students to the connections between Indigenous knowledge systems and robotics prototypes (see, for example, the Australian example of creating a physical and pedagogical space through the Indigenous Robotics Prototype Workshop; <https://opus.lib.uts.edu.au/bitstream/10453/124435/1/FCJ-209AbdillaFitch.pdf> ).

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Instructors are encouraged to add examples and application from other cultures when possible, and to find potential project collaboration with minority or marginalized groups to complete project course work in all technology programs within the Faculty of Applied and Technical Studies. As this course focuses on the dynamics and operations of a robotic device, opportunities will be provided for students to consider robotics and Universal Design as part of their project-based learning. (See for example M.S. Bubul on [A Universal Design for Robotics Education](#) (Journal of Science Education for Students with Disabilities, Vol. 20, Iss. 1 [2017], Art. 2).

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.):

Credit value - 3

Class size limit - 24

Frequency of offering - once a year, winter

Lab equipment – use of existing equipment.

9. Estimate of the typical costs for this course, including textbooks and other materials:

All books and equipment already exist and are in use.





ORIGINAL COURSE IMPLEMENTATION DATE: September 2022  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ELTR 217                                                                                                                                                                                                                                                                                                                                                           |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                       |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Robotics                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b>                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Applied and Technical Studies                                                                                                                                                                                                                                                                                                                                          |           | <b>Department (or program if no department):</b> Electronics                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Students will learn to install, commission, program, and operate a 6-axis robotic arm. This course also covers safety and integration of robotic arms into industrial and automated processes.                                                                                                                                                                    |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                   |           | Admission to the Automation and Robotics Technician diploma program or department permission.                                                                                                                                                                                                                                                                                                                                                                                                |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                     |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                 |           | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i> |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Winter only</b><br>Maximum enrolment (for information only): <b>24</b> |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar</td> <td>20</td> </tr> <tr> <td>Supervised laboratory hours (design lab)</td> <td>25</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table>                                       |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20 | Supervised laboratory hours (design lab) | 25 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                   | 20        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (design lab)                                                                                                                                                                                                                                                                                                                                                          | 25        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                       |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> February 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> November 18, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                          |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

**ELTR 217**

**University of the Fraser Valley Official Undergraduate Course Outline**

**Page 2 of 2**

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Explain dynamics and operation parameters of a basic robotic arm up to 7 degrees of freedom.
2. Select and specify robots for specific applications and environment.
3. Install and commission robotic arms.
4. Write new programs and update existing programs for controlling robotic arms.
5. Implement safety measures for robotic arm operation
6. Integrate robotic arms into new or existing automation or industrial process.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|              |     |           |     |  |   |
|--------------|-----|-----------|-----|--|---|
| Final exam:  | 15% | Lab work: | 50% |  | % |
| Assignments: | 35% |           | %   |  | % |

**Details:**

**NOTE:** The following sections may vary by instructor. Please see course syllabus available from the instructor.

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type                   | Author or description | Title and publication/access details | Year |
|------------------------|-----------------------|--------------------------------------|------|
| 1. No text is required |                       |                                      |      |
| 2.                     |                       |                                      |      |
| 3.                     |                       |                                      |      |
| 4.                     |                       |                                      |      |
| 5.                     |                       |                                      |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

**Course Content and Topics**

- Structure and function of a robot system
- Moving a robot
- Starting up a robot
- Executing robot programs
- Working with program files
- Creating and modifying programmed motions
- Using technology packages
- Configuration of programming of external tools
- Introduction to expert level
- Using logic functions, control functions, variables and declarations

**Memo for Program Changes**

To: FATS CC, FATS FC, UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: 2021/11/12

**Subject: Program changes for the Electronics Technician certificate**

1. Summary of changes (select all the apply):

- ☐ Program revision that requires new resources
- ☒ Addition of new course options or deletion or substitution of a required course
- ☐ Change to the majority of courses in an approved program
- ☐ Change to the duration, philosophy, or direction of a program
- ☐ Addition of a new field of specialization, such as a concentration
- ☐ Change in requirements for admission
- ☐ Change in requirements for residency or continuance
- ☐ Change in admission quotas
- ☐ Change which triggers an external review
- ☐ Deletion of a program not included in the Program Discontinuance policy
- ☐ Other – Please specify:

2. Rationale for change(s):

The course ELTR 100 Electrical Network Analysis was originally intended to replace the first module of the Electronics Technician Common Core program, which was a full-time day training program. The new format of the course has significantly decreased lecture hours compared to the old format. This has been found to be less than adequate in terms of providing students with time for experiential learning exercises and reviewing of cumulative material.

The material covered in this course is foundational to the rest of the Electronics, Automation and Digital Manufacturing programs. To ensure that adequate time is spent on these topics, some of it will be removed from this course and moved to a new course (ELTR 105 Solid State Semiconductor Devices) designed such that it can be taken either concurrently or as a follow-up to this course.

By moving some of the material into a new course, students will have more experiential time with the material. The intention for this change is that it will allow students more time to solidify their understanding of these foundational concepts and see more success in the program overall.

In order to maintain program credit totals, contact hours and student schedules, this new course will replace ELTR 170 Electronic System Integration, which is less necessary for students' long-term success in the field of Electronics and Automation.

3. If program outcomes are new or substantially changed, explain how they align with the Institutional Learning Outcomes:

Program outcomes have not changed. All outcomes from ELTR 100 still exist either in ELTR 100 or in ELTR 105.

4. What consideration has been given to indigenizing the curriculum?

Instructors are encouraged to identify and incorporate indigenous ways of knowing into instruction and course content whenever possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the faculty of applied and technical studies.

5. Will additional resources be required? If so, how will these costs be covered?

No additional resources will be required.

6. How will students be impacted? (Indicate the projected number of students impacted.) Is the change expected to increase/decrease enrolment in the program?

Schedules, materials, and textbooks will remain the same. Impact on students will be minimal.

This may lead to increased enrolment in second-year programs as students are better able to solidify the foundational knowledge required for success in the Electronics, Automation and Digital Manufacturing programs.

7. Does the number of required core or elective credits from the program-specific discipline change? If so, will this change the total number of courses to be offered within the discipline?

The number of required courses remains the same.

8. Identify any available resources that will be used to accommodate the program changes. (Eg. seats in existing classes, conversion of sections, timetabling changes, deletion of courses, etc.)

ELTR 170 will be discontinued and removed from the program. The resources from that course will be applied to ELTR 105.

9. Is the number of required or elective courses from other disciplines in the program changing? If so, what is the estimated impact to enrolments in these courses? Provide a memo from the respective dean(s) of the impacted faculty to confirm if budgetary implications have been considered and addressed.

No changes to required or elective courses from other disciplines.

10. Provide a memo from the program's dean to confirm that budgetary implications of the proposed changes have been considered and will be addressed within the faculty budget.

## Electronics Technician certificate

### Program outline

| Course              | Title                                                                            | Credits        |
|---------------------|----------------------------------------------------------------------------------|----------------|
| ELTR 100            | Electrical Network Analysis                                                      | <del>4</del> 3 |
| <del>ELTR 105</del> | <del>Electrical Network Analysis: Alternating Current</del>                      | <del>3</del>   |
| ELTR 110            | Electronics Manufacturing Processes                                              | 3              |
| ELTR 130            | Digital Logic Systems                                                            | 3              |
| ELTR 140            | Introduction to Engineering Graphics (formerly ELTR 200)                         | 3              |
| ELTR 150            | Solid State Electronic Devices                                                   | 3              |
| ELTR 160            | Project Management Methodologies and Impacts for Electronics (formerly ELTR 210) | 3              |
| <del>ELTR 170</del> | <del>Electronic System Integration</del>                                         | <del>2</del>   |
| ELTR 180            | Networks and Data Communications                                                 | 3              |
| ELTR 190            | Electronics Capstone Project                                                     | 3              |
| CMNS 125            | Communicating Professionally to Academic and Workplace Audiences                 | 3              |

**Memo for Program Changes**

To: UEC

From: Avner Bachar, Electronics/Automation/Digital Manufacturing Program Chair

Date: Nov 11, 2021

**Subject: Program change Automation and Robotics diploma**

1. Summary of changes (select all the apply):

- ☐ Program revision that requires new resources
- ☒ Addition of new course options or deletion or substitution of a required course
- ☐ Change to the majority of courses in an approved program
- ☐ Change to the duration, philosophy, or direction of a program
- ☐ Addition of a new field of specialization, such as a concentration
- ☐ Change in requirements for admission
- ☐ Change in requirements for residency or continuance
- ☐ Change in admission quotas
- ☐ Change which triggers an external review
- ☐ Deletion of a program not included in the Program Discontinuance policy
- ☐ Other – Please specify:

2. Rationale for change(s):

With the transition of the Electronics day training program into a course offering format, some changes were made to the second-year diploma option, namely, Automation and Robotics. With this restructuring and running the new format for the first time this past academic year, some deficiencies were discovered. Total credits for first term stood at 17, with 14 credits for the second term. Financial Aid advised that for students to qualify for financial aid, there must be at least 15 credits offered per term. Rather than expanding one of the courses to a heavier load, the department feels students are better served with more offerings to enrich their knowledge. The addition of the ELTR 217 Robotics course will add a second robot option, namely ABB. This will allow students to be trained on robots from two leading industry robotic manufacturers and expand their employment options while freeing more time to concentrate on the capstone project, because robot training currently, is a portion of the ELTR 216 capstone project course. With the changes to ELTR 202 (reduced from 5 to 3 credits) and the addition of ELTR 217 there are now 15 credits in the first term and 17 credits in the second term.

3. If program outcomes are new or substantially changed, explain how they align with the Institutional Learning Outcomes:

No changes to learning outcomes.

4. What consideration has been given to indigenizing the curriculum?

Instructors are encouraged to add indigenous material when possible, and to find potential project collaboration with indigenous groups/companies to complete project course work in all technology programs within the faculty of applied and technical studies.

5. Will additional resources be required? If so, how will these costs be covered?

No additional resources required.

6. How will students be impacted? (Indicate the projected number of students impacted.) Is the change expected to increase/decrease enrolment in the program?

Additional cost with 3 credits will increase the cost of the overall program. The cost will be balanced as other courses have been reduced in credits (see other course changes submitted). Hence, the total program credit increase is 1 credit (currently at \$165 cost per credit). The department expects this addition will increase enrolment by offering more specialized training.

7. Does the number of required core or elective credits from the program-specific discipline change? If so, will this change the total number of courses to be offered within the discipline?

The number of credits increase by a total of 1 credit for the program (over 2 terms). There is a 3-credit increase in the second term, changing from 14 to 17 and a reduction of 2 credits in the first term, changing from 17 to 15 credits. This change is recommended for enabling students' eligibility for grants (term must have a minimum 15 credits). The second term is different than all other standard academic terms as it offers 4 courses only. Adding this course will bring it to 5 courses in the term, aligning it with the common academic terms structure.

8. Identify any available resources that will be used to accommodate the program changes. (Eg. seats in existing classes, conversion of sections, timetabling changes, deletion of courses, etc.). Other courses in the program changed to accommodate hours and credits of the program, which helps placing this course in the program with minimal impact. All resources are already in house and in use by the department (Automation and Robotics lab).

9. Is the number of required or elective courses from other disciplines in the program changing? If so, what is the estimated impact to enrolments in these courses? Provide a memo from the respective dean(s) of the impacted faculty to confirm if budgetary implications have been considered and addressed.

N/A

10. Provide a memo from the program's dean to confirm that budgetary implications of the proposed changes have been considered and will be addressed within the faculty budget.

N/A

## **Automation and Robotics Technician diploma**

### Program outline

| Course                   | Title                                                     | Credits           |
|--------------------------|-----------------------------------------------------------|-------------------|
| ELTR 201                 | Hydraulic and Pneumatic Control Systems                   | 3                 |
| ELTR 202                 | Microprocessors/Microcontrollers and Data Acquisition     | <del>5</del> 3    |
| ELTR 211                 | Programmable Logic Controllers                            | 3                 |
| ELTR 214                 | Control Systems                                           | 5                 |
| ELTR 216                 | Automation and Control Systems Project                    | 3                 |
| <a href="#">ELTR 217</a> | <a href="#">Robotics</a>                                  | <a href="#">3</a> |
| ELTR 220                 | Statistics for Electronics                                | 3                 |
| ELTR 230                 | Electrical Machines: Principles, Application, and Control | 3                 |
| ELTR 252                 | Microcontrollers II                                       | 3                 |
| ELTR 261                 | Programmable Logic Controllers II                         | 3                 |



**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, Biology Department Head

Date: September 2021

**Subject: Proposal for revision of BIO 330 Plants and Animals of British Columbia**

1. Summary of changes (select all that apply):

☒ Six-year review

☐ Number and/or course code

☐ Credits and/or total hours

☐ Title

☒ Calendar description

☐ Prerequisites and/or co-requisites

☐ Frequency of course offering

☒ Learning outcomes

X Delivery methods and/or texts and resource materials

☐ PLAR options, grading system, and/or evaluation methods

☐ Discontinuation of course

☐ Other - Please specify:

2. Rationale for change: Revised to reflect current delivery.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

Learning outcomes now reflect an indigenization of the course and an integration of indigenous ways of describing plants animals and ecology. An integration of current ecological classification and conservation methods had been added to include current taxonomy and methods.

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

5. Which program areas have been consulted about the change(s)? BIO Curriculum Committee

6. What consideration has been given to indigenizing the curriculum? Indigenous names have been sourced from current references and from linguistic databases. A new section on the indigenous uses of plants has been added to the biology of the plants and animals. Indigenous texts and references are provided as links to the current culture art and literature of the plants and animals of BC

7. If this course is not eligible for PLAR, explain why:

8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: *None of these items have changed.*
  - a. Credit value
  - b. Class size limit
  - c. Frequency of offering
  - d. Resources required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?  
*None*
10. Estimate of the typical costs for this course, including textbooks and other materials: \$30  
(textbook)  
*2 textbooks both approximately \$45 in cost. Lab manual is provided free of charge and accessed from the Course Blackboard shell*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 1999  
**REVISED COURSE IMPLEMENTATION DATE:** September 2022  
**COURSE TO BE REVIEWED** (six years after UEC approval): January 2028  
**Course outline form version:** 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|----|--------------------------------------------------------------|--|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> BIO 330                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Number of Credits:</b> 4 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                  |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Full Title:</b> Plants and Animals of British Columbia<br><b>Course Short Title:</b> Plants and Animals of BC<br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Department (or program if no department):</b> Biology                                                                                                                                                                                                                                                                                                                |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Calendar Description:</b><br>An introduction to some of the most common species of plants, birds, and mammals of British Columbia. Through lecture and laboratory experience, students will learn systematic identification of major families of organisms. The ecology and distribution of organisms will be discussed in the context of the Biogeoclimatic Ecosystem Classification system currently used in British Columbia.                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | 60 university-level credits, including BIO 210.                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                                            |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                                           |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                                                |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="http://bctransferguide.ca">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar hours</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>90</b></td> </tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                   | 45 | Tutorials/workshops |  | Supervised laboratory hours | 45 | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>90</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45        |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 45        |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>90</b> |                                                                                                                                                                                                                                                                                                                                                                         |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Maximum enrolment (for information only):</b> 24<br><b>Expected Frequency of Course Offerings:</b><br>Annually <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                                                    |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Gregory Schmaltz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                                                                                                                 |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                                                                                                                |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |

**Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Apply various methods to identify the common animal and plant families of British Columbia using correct scientific and common names.
2. Integrate indigenous terminology for plant and animal names and uses.
3. Describe the biogeoclimatic zones of BC.
4. Relate the biodiversity to indigenous, cultural, and artistic interpretations.
5. Relate distribution of organisms to the characteristics of the biogeoclimatic zones in which they occur.

**Prior Learning Assessment and Recognition (PLAR)**

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

The course will consist of a series of lectures, laboratory exercises, demonstrations, small group practice, and class discussion. For some aspects of the course audio-visual presentations, photographs, drawings, herbarium samples, and museum specimens will be used. An introduction of First Nations terminology and names will be presented throughout the course.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Typical Text(s) and Resource Materials** (*If more space is required, download Supplemental Texts and Resource Materials form.*)

| Author (surname, initials)   | Title (article, book, journal, etc.)        | Current ed.                         | Publisher           | Year |
|------------------------------|---------------------------------------------|-------------------------------------|---------------------|------|
| 1. Varner, C                 | Flora and Fauna of Coastal British Columbia | <input checked="" type="checkbox"/> | Heritage Publishers | 2015 |
| 2. Cannings, R & Cannings, S | British Columbia A natural history          | <input checked="" type="checkbox"/> | Greystone Books     | 2015 |

**Required Additional Supplies and Materials** (*Software, hardware, tools, specialized clothing, etc.*)

**Typical Evaluation Methods and Weighting**

|                |     |                    |     |                         |   |                   |      |
|----------------|-----|--------------------|-----|-------------------------|---|-------------------|------|
| Final exam:    | 25% | Assignments:       | %   | Group BEC field work:   | % | Animal Portfolio: | 20%  |
| Midterm exam:  | 10% | Herbarium project: | 20% | Group BEC presentation: | % | Other:            | %    |
| Quizzes/tests: |     | Lab exam:          | 25% | Shop work:              | % | Total:            | 100% |

**Details (if necessary):**
**Typical Course Content and Topics**

Introduction to the biogeoclimatic zones and basic plant ID  
 Indigenous use of plants and indigenous methods of ecology  
 Coastal biogeoclimatic zones  
 Cetaceans  
 Mountains of the coast  
 Small mammals of BC  
 Inland grassland  
 Ungulates  
 Boreal and tundra  
 Wolves and bears  
 Alpine biogeoclimatic  
 Birds of BC

**Laboratory schedule**

Lab 1: Broadleaf plants of BC  
 Lab 2: Conifers of BC  
 Lab 3: Flowers of BC Alpine and coastal  
 Lab 4: Flowers of BC Alpine and coastal  
 Lab 5: Lichens and DNA identification

**Lab Module quiz 1: Plants of BC**

Lab 6: Cetaceans ID  
 Lab 7: Skulls ID and Small Mammals  
 Lab 8 Ungulates ID  
 Lab 9: Bears and wolves ID  
 Lab 10: Birds of BC  
 Lab 11: review lab

**Lab Module quiz 2: Animals of BC**

**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, Biology Department Head

Date: September 2021

**Subject: Proposal for revision of BIO 340 Population and Community Ecology**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

*Revised to reflect current delivery.*

*MATH pre-requisite removal - While population models are examined in the course, they are examined from a conceptual point of view, which does not require an understanding of advanced calculus.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

*Changes to the learning outcomes were made to better align with the current course content/delivery, as well as the program and institutional learning outcomes. The lecture component of the course is delivered as a combination of instructor led presentations/discussions aimed at developing students' understanding of the main concepts and theories in population and community ecology, and student-led discussions for which students are required to synthesize, critically evaluate, and discuss (i.e. effectively communicate information/ideas, while also listening attentively and respectfully to the point of view of others) current literature in population and community ecology, with a focus on current issues and applications. Laboratories will provide students with the opportunity to apply knowledge gained in lecture and to collaborate on projects that require gathering and evaluating information from online databases, use of technology (R and R studio), inquiry, creative thinking, and problem solving via a self-directed field study, and oral, written and visual communication of scientific findings.*

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?  
*N/A*
5. Which program areas have been consulted about the change(s)?  
*BIO Curriculum Committee*
6. What consideration has been given to indigenizing the curriculum?  
*Discussion-based instruction in lecture allows for diverse student voices and perspectives to be heard while learning about current science in ecology. Laboratory projects will provide students with the opportunity to exchange ideas and to engage in active and experiential learning both in the lab and in the field.*
7. If this course is not eligible for PLAR, explain why:
8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: *None of these items have changed.*
  - a. Credit value
  - b. Class size limit
  - c. Frequency of offering
  - d. Resources required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?  
*Data collection for one of the lab projects will take place at an off-campus (but local – i.e. Abbotsford or Chilliwack) field site. Students are required to travel to the field site via their own means of transportation. Entrance to the field site (e.g., community forest, regional park) is free.*
10. Estimate of the typical costs for this course, including textbooks and other materials:  
*\$60 (textbook) + \$20 (lab coat)*



ORIGINAL COURSE IMPLEMENTATION DATE: January 2013  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|--|-----------------------------|----|--------------------------------------------------------------|--|------------------------------|--|----------------------|--|--------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course Code and Number:</b> BIO 340                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Number of Credits:</b> 4 <u>Course credit policy (105)</u> |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Course Full Title:</b> Population and Community Ecology<br><b>Course Short Title:</b><br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Department (or program if no department):</b> Biology      |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Calendar Description:</b><br>An introduction to the study of ecological populations and communities, including processes that create, modify, and maintain patterns in biodiversity, population dynamics, species interactions, niche theory, ecological networks, community structure and assembly, and metapopulation and metacommunity dynamics. Laboratories will introduce students to research methods used to study populations and communities in both the lab and the field and will further students' understanding of the process of science in an ecological context, including use of the R language for data analysis.<br>Note: Field trips outside of class time may be required. |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BIO 210 and MATH 111.                                         |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                                                                                                                                              |                                                               | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                 |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                               | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>45</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td>45</td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>90</b></td> </tr> </table>                                                                                                                                                                                  |                                                               | Lecture/seminar hours                                                                                                                                                                                                                                                         | 45 | Tutorials/workshops |  | Supervised laboratory hours | 45 | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>90</b> | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="http://bctransferguide.ca">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 45                                                            |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 45                                                            |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                               |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>90</b>                                                     |                                                                                                                                                                                                                                                                               |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                               | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit                                                                                                                                                          |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                               | <b>Maximum enrolment (for information only):</b> 24<br><b>Expected Frequency of Course Offerings:</b><br><i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                   |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Department / Program Head or Director:</b> Gregory Schmaltz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                               | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                       |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                               | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                      |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                               | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                      |    |                     |  |                             |    |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                                                                                                                                                                                                                                                                         |

**Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Explain the core concepts associated with the study of population and community ecology, including:
  - a. Patterns in biodiversity at local, landscape, and global scales.
  - b. Dynamics of single populations.
  - c. Fundamentals of species interactions such as competition, predation, parasitism, and mutualism.
  - d. Patterns in community structure including networks, food chains and food webs, community assembly, metapopulations, and metacommunities.
2. Interpret graphical representations and mathematical models of ecological patterns and processes, including basic models of intraspecific and interspecific interactions.
3. Evaluate current scientific literature in population and community ecology and discuss its broader scientific impact.
4. Analyze data from online databases and identify both the value and limitations of using large-scale online databases in ecological research.
5. Demonstrate laboratory techniques used to examine and quantify population growth and/or species interactions.
6. Collaborate with peers to design and conduct a field study in community ecology, including development of a research question, hypothesis, and sampling design, data collection, data analysis, and graphical, verbal, and written presentation of scientific findings.
7. Demonstrate a working knowledge of the R language and the utility of this tool for both graphics and data analysis in ecology.

**Prior Learning Assessment and Recognition (PLAR)**

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

This course will consist of a combination of lectures that introduce students to the main concepts and theories in population and community ecology, with an emphasis on the connection between patterns and underlying processes, and student-led discussions that expand on the topics presented in lecture, with emphasis on current issues and methodologies and practical applications. Labs will introduce students to practical and analytical techniques used to study populations and communities in both the lab and field.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Typical Text(s) and Resource Materials** (*If more space is required, download Supplemental Texts and Resource Materials form.*)

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.                         | Publisher               | Year |
|----------------------------|--------------------------------------|-------------------------------------|-------------------------|------|
| 1. Mittelbach and McGill   | Community Ecology                    | <input checked="" type="checkbox"/> | Oxford University Press | 2019 |
| 2.                         |                                      | <input type="checkbox"/>            |                         |      |

**Required Additional Supplies and Materials** (*Software, hardware, tools, specialized clothing, etc.*)

**Typical Evaluation Methods and Weighting**

|                |     |              |     |                   |   |            |      |
|----------------|-----|--------------|-----|-------------------|---|------------|------|
| Final exam:    | 20% | Assignments: | 25% | Field experience: | % | Portfolio: | %    |
| Midterm exam:  | 10% | Project:     | %   | Practicum:        | % | Other:     | 10%  |
| Quizzes/tests: | %   | Lab work:    | 35% | Shop work:        | % | Total:     | 100% |

**Details (if necessary):** Other = contribution to literature discussions.

**Typical Course Content and Topics**

Patterns in biodiversity  
 Biodiversity and ecosystem functioning – nutrient cycling, stability, and invasibility  
 Population growth models  
 Predator-prey interactions
 

- Functional responses
- Lotka-Volterra and Rosenzweig-MacArthur models
- Optimal foraging and prey choice
- Non-consumptive effects of predators

 Competitive interactions
 

- Lotka-Volterra and consumer-resource models
- Niche theory and species coexistence

 Mutualisms  
 Food webs and ecological networks  
 Food chains and trophic cascades  
 Community assembly  
 Metapopulations  
 Metacommunities



**Laboratory:**

Laboratory is organized around three projects that introduce students to different research approaches used to study patterns and processes in ecological populations and communities, and that allow students to improve their observational, data collection, and data analysis skills, and to develop a better understanding of the process of science in an ecological context.

Introductory lab: Used to introduce students to the R programming language.

Project 1: Involves developing and testing hypotheses related to factors that influence species richness and/or diversity at multiple spatial scales, using data from publicly available online databases. This project will also provide students with hands-on experience using R for graphics and statistical analysis.

Project 2: Involves a multi-week lab experiment to examine population growth and/or species interactions, and how climate change (or other abiotic factors) may impact both population growth and the nature of these interactions. This project will also allow students to apply the population growth and species interaction models presented in the lecture component.

Project 3: Involves a largely self-directed, multi-week field study, which can include additional work in the lab (e.g., to identify specimens, extract invertebrates from soil samples...etc.). Working in small groups, students are required to develop a research question (to be approved by the instructor) that can be investigated at the pre-determined study site (e.g., local forest). Groups will then submit a research proposal, after which each group will meet independently with the instructor to receive feedback on their proposed study design. Data collection will then take place over multiple lab periods. Data analysis will then be carried out using R and each group will present their research project to the class.

**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, BIO Department Head

Date: October 2021

**Subject: Proposal for revision of (BIO 408 - Directed Studies in Biology I)**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *Six year review, update to prerequisites. Since students can take more than one directed studies (e.g. BIO 408 and then BIO 409) these other directed studies courses cannot be antirequisites.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

5. Which program areas have been consulted about the change(s)? *BIO Curriculum Committee and BIO Department.*

6. What consideration has been given to indigenizing the curriculum?

*This course provides opportunities for students to participate in experiential learning and/or research and scholarly activities with faculty members.*

7. If this course is not eligible for PLAR, explain why:

8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: *None of these items have changed.*

- a. Credit value
- b. Class size limit
- c. Frequency of offering

- d. Resources required (labs, equipment)
- 9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
- 10. Estimate of the typical costs for this course, including textbooks and other materials:



ORIGINAL COURSE IMPLEMENTATION DATE: November 1994  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|--|-----------------------------|--|--------------------------------------------------------------|--|------------------------------|--|------------------------------------------------|----|--------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> BIO 408                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                            |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Course Full Title:</b> Directed Studies in Biology I                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Course Short Title:</b><br>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Department (or program if no department):</b> Biology                                                                                                                                                                                                                          |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Calendar Description:</b><br>Designed for students in a Biology major or minor, this course provides an opportunity to apply scientific principles in a creative hands-on directed studies research experience outside the usual course format. Students will develop their own projects in biology under the supervision of a faculty member with expertise in the field.                                                                                                                                         |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | (B+ or better in three of BIO 201, BIO 202, BIO 210, or BIO 220), and instructor's permission.                                                                                                                                                                                    |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Antirequisite Courses</b> (Cannot be taken for additional credit.)<br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)                                                                                                              |           | <b>Special Topics</b> (Double-click on boxes to select.)<br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, topic will be recorded when offered.)                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr><td>Lecture/seminar hours</td><td></td></tr> <tr><td>Tutorials/workshops</td><td></td></tr> <tr><td>Supervised laboratory hours</td><td></td></tr> <tr><td>Experiential (field experience, practicum, internship, etc.)</td><td></td></tr> <tr><td>Supervised online activities</td><td></td></tr> <tr><td>Other contact hours: Student-directed learning</td><td>45</td></tr> <tr><td><b>Total hours</b></td><td><b>45</b></td></tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                             |  | Tutorials/workshops |  | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: Student-directed learning | 45 | <b>Total hours</b> | <b>45</b> | <b>Transfer Credit</b><br>Transfer credit already exists: (See <a href="#">bctransferguide.ca</a> .)<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, fill in transfer credit form.) |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Other contact hours: Student-directed learning                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 45        |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>45</b> |                                                                                                                                                                                                                                                                                   |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit                                                                                                                                                              |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Maximum enrolment (for information only):</b> 6<br><b>Expected Frequency of Course Offerings:</b><br>Every semester (Every semester, Fall only, annually, etc.)                                                                                                                |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Department / Program Head or Director:</b> Gregory Schmaltz                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                           |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                          |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                          |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |

BIO 408

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

## Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Formulate a testable scientific hypothesis on a specific chosen biological topic.
2. Critique the scientific literature on the chosen topic.
3. Review technical literature to learn specific experimental techniques
4. Analyze data gathered during controlled experimentation
5. Communicate scientific findings in both written and oral forms.

## Prior Learning Assessment and Recognition (PLAR)

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

## Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.)*

Students will work closely with university supervisors and, where appropriate, with industrial sponsors. Lectures, demonstrations, small group practice, discussion, audio-visual presentations, use of models and charts.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

## Typical Text(s) and Resource Materials *(If more space is required, download Supplemental Texts and Resource Materials form.)*

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.              | Publisher | Year |
|----------------------------|--------------------------------------|--------------------------|-----------|------|
| 1.                         |                                      | <input type="checkbox"/> |           |      |
| 2.                         |                                      | <input type="checkbox"/> |           |      |

## Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

## Typical Evaluation Methods and Weighting

|                                                      |     |                              |     |
|------------------------------------------------------|-----|------------------------------|-----|
| Final written thesis:                                | 40% | Proposal:                    | 20% |
| Technical ability, organization and time management: | 20% | Final research presentation: | 20% |

## Details (if necessary):

## Typical Course Content and Topics

Students will be expected to spend no fewer hours on this project than on any other upper level 3-credit biology course (45 hours). The student experience consists of several stages:

### Selection of a suitable area

The student may already have a specific area of research in mind or a specific instructor with whom he or she would like to interact. In this case, the student and instructor will strike an agreement depending on:

- a) available equipment and space
- b) budget for consumables
- c) availability of appropriate faculty and staff

Otherwise, an instructor may suggest a project to a suitable student. In all cases, it will be the instructor's responsibility to ensure that the proposed project is appropriate for an upper level student to accomplish in the proposed time. It is also the responsibility of the instructor to ensure that equipment, funding, and space are available for the project and proper safety training is completed. In some cases, students may benefit from expert advice and input in addition to that of the supervising instructor (for example, industrial partners, etc.). However, it is always the responsibility of the instructor to ensure that the project conforms to UFV academic standards.

### Design of research project

The student will survey the literature in a particular field under the guidance of the appropriate instructor.

The student will be assisted to build on the literature to formulate a testable hypothesis and design an appropriate experimental approach. The student will address questions such as: novelty of the approach, statistical analysis to be carried out, use of controls, use of replicates.

### Carry out research

The instructor will aid the student in mastery of the techniques necessary to carry out the research. The student will be responsible for scheduling time for the various stages of the project, making sure equipment is available, reporting to the instructor and industrial sponsor where appropriate. Regular meetings of student and instructor are required for all projects.

### Production of research paper

The student will be expected to produce a research paper that is clear and scholarly and written in the style of a major journal. The instructor will aid the student in producing a quality piece of science communication.

### Industrial partners

If such an arrangement is possible, this will be set up through the UFV Research Office.

**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, BIO Department Head

Date: October 2021

**Subject: Proposal for revision of (BIO 409 - Directed Studies in Biology II)**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *Six year review. Since students can take more than one directed studies (e.g. BIO 408 and then BIO 409) these other directed studies courses cannot be antirequisites.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

5. Which program areas have been consulted about the change(s)? *BIO Curriculum Committee and BIO Department.*

6. What consideration has been given to indigenizing the curriculum? *This course provides opportunities for students to participate in experiential learning and/or research and scholarly activities with faculty members.*

7. If this course is not eligible for PLAR, explain why:

8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: *None of these items have changed.*

- a. Credit value
- b. Class size limit
- c. Frequency of offering
- d. Resources required (labs, equipment)

9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
10. Estimate of the typical costs for this course, including textbooks and other materials:



ORIGINAL COURSE IMPLEMENTATION DATE: September 1995  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|--|-----------------------------|--|--------------------------------------------------------------|--|------------------------------|--|------------------------------------------------|----|--------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> BIO 409                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Number of Credits:</b> 6 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Course Full Title:</b> Directed Studies in Biology II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Course Short Title:</b><br>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Department (or program if no department):</b> Biology                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Calendar Description:</b><br>Designed for students in a Biology major or minor, this course provides an opportunity to apply scientific principles in a creative hands-on directed studies research experience outside the usual course format. Students will develop their own projects in biology under the supervision of a faculty member with expertise in the field. BIO 409 is similar to BIO 408, but is designed to accommodate more ambitious projects.<br>Note: This course is often taken over two semesters as BIO 409A and BIO 409B. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | (B+ or better in three of BIO 201, BIO 202, BIO 210, or BIO 220), and instructor's permission.                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Antirequisite Courses</b> (Cannot be taken for additional credit.)<br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s): (If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)                                                                                                                                                 |           | <b>Special Topics</b> (Double-click on boxes to select.)<br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, topic will be recorded when offered.)<br><b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr><td>Lecture/seminar hours</td><td></td></tr> <tr><td>Tutorials/workshops</td><td></td></tr> <tr><td>Supervised laboratory hours</td><td></td></tr> <tr><td>Experiential (field experience, practicum, internship, etc.)</td><td></td></tr> <tr><td>Supervised online activities</td><td></td></tr> <tr><td>Other contact hours: Student-directed learning</td><td>90</td></tr> <tr><td><b>Total hours</b></td><td><b>90</b></td></tr> </table>                                 |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Tutorials/workshops |  | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: Student-directed learning | 90 | <b>Total hours</b> | <b>90</b> | <b>Transfer Credit</b><br>Transfer credit already exists: (See <a href="#">bctransferguide.ca</a> .)<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, fill in transfer credit form.) |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Other contact hours: Student-directed learning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 90        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>90</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Department / Program Head or Director:</b> Gregory Schmaltz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                     |  |                             |  |                                                              |  |                              |  |                                                |    |                    |           |                                                                                                                                                                                                                                                                                                                                    |  |



**BIO 409**

**University of the Fraser Valley Official Undergraduate Course Outline**

Page 2 of 2

**Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Formulate a testable scientific hypothesis on a specific chosen biological topic.
2. Critique the scientific literature on the chosen topic.
3. Review technical literature to learn specific experimental techniques.
4. Analyze data gathered during controlled experimentation.
5. Communicate scientific findings in both written and oral forms.

**Prior Learning Assessment and Recognition (PLAR)**

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

**NOTE:** The following sections may vary by instructor. Please see course syllabus available from the instructor.

**Typical Text(s) and Resource Materials** (*If more space is required, download Supplemental Texts and Resource Materials form.*)

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.              | Publisher | Year |
|----------------------------|--------------------------------------|--------------------------|-----------|------|
| 1.                         |                                      | <input type="checkbox"/> |           |      |
| 2.                         |                                      | <input type="checkbox"/> |           |      |

**Required Additional Supplies and Materials** (*Software, hardware, tools, specialized clothing, etc.*)

**Typical Evaluation Methods and Weighting**

|                                                      |     |                                           |      |
|------------------------------------------------------|-----|-------------------------------------------|------|
| Final written thesis:                                | 35% | Proposal:                                 | 20%  |
| Final research paper oral presentation:              | 15% | Final research paper poster presentation: | 10%  |
| Technical ability, organization and time management: | 20% | Total:                                    | 100% |

**Details (if necessary):**

**Typical Course Content and Topics**

The student experience consists of several stages:

**Selection of a suitable area**

The student may already have a specific area of research in mind or a specific instructor with whom he or she would like to interact. In this case, the student and instructor will strike an agreement depending on:

- a) available equipment and space
- b) budget for consumables
- c) availability of appropriate faculty and staff

Otherwise, an instructor may suggest a project to a suitable student. In all cases, it will be the instructor's responsibility to ensure that the proposed project is appropriate for an upper level student to accomplish in the proposed time. It is also the responsibility of the instructor to ensure that equipment, funding, and space are available for the project and proper safety training is completed. In some cases, students may benefit from expert advice and input in addition to that of the supervising instructor (for example, industrial partners, etc.). However, it is always the responsibility of the instructor to ensure that the project conforms to UFV academic standards.

**Design of research project**

The student will survey the literature in a particular field under the guidance of the appropriate instructor.

The student will be assisted to build on the literature to formulate a testable hypothesis and design an appropriate experimental approach. The student will address questions such as: novelty of the approach, statistical analysis to be carried out, use of controls, use of replicates.

**Carry out research**

The instructor will aid the student in mastery of the techniques necessary to carry out the research. The student will be responsible for scheduling time for the various stages of the project, making sure equipment is available, reporting to the instructor and industrial sponsor where appropriate. Regular meetings of student and instructor are required for all projects.

**Production of research paper**

The student will be expected to produce a research paper that is clear and scholarly and written in the style of a major journal. The instructor will aid the student in producing a quality piece of science communication.

**Industrial partners**

If such an arrangement is possible, this will be set up through the UFV Research Office.

**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, BIO Department Head

Date: October 2021

**Subject: Proposal for revision of (BIO 415 Cancer Biology)**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

*Revised to reflect current delivery and bring course in line with other upper-level biology offerings. Offer more flexibility for students to take the course. Prerequisite changes made to better reflect requirements of course, focus on metabolic pathways and cell signalling covered in BIO 201 and BIO 202 respectively. Removal of 400 level prerequisite as this knowledge is not required for success in BIO 415.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

*Changes were made to better align the learning outcomes with departmental and institutional learning outcomes.*

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

N/A

5. Which program areas have been consulted about the change(s)?

*Biology curriculum committee.*

What consideration has been given to indigenizing the curriculum?

*Certain cancers often disproportionately affect specific groups, including indigenous populations. We will discuss genetic/environmental predispositions to cancer that are currently, or have been in the past, been associated with specific communities, for example:*

Moore SP, Antoni S, Colquhoun A, Healy B, Ellison-Loschmann L, Potter JD, Garvey G, Bray F. Cancer incidence in indigenous people in Australia, New Zealand, Canada, and the USA: a comparative population-based study. *Lancet Oncol.* 2015 Nov;16(15):1483-1492. doi: 10.1016/S1470-2045(15)00232-6. Epub 2015 Oct 22. PMID: 26476758.

Simkin J, Smith L, van Niekerk D, Caird H, Dearden T, van der Hoek K, Caron NR, Woods RR, Peacock S, Ogilvie G. Sociodemographic characteristics of women with invasive cervical cancer in British Columbia, 2004-2013: a descriptive study. *CMAJ Open.* 2021 Apr 22;9(2):E424-E432. doi: 10.9778/cmajo.20200139. PMID: 33888548; PMCID: PMC8101640.

If this course is not eligible for PLAR, explain why:

6. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area:
  - a. Credit value
  - b. Class size limit
  - c. Frequency of offering
  - d. Resources required (labs, equipment)
7. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
8. Estimate of the typical costs for this course, including textbooks and other materials:  
Textbook \$120



ORIGINAL COURSE IMPLEMENTATION DATE: January 2009  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|----|-----------------------------|--|--------------------------------------------------------------|--|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> BIO 415                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                          |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Full Title:</b> Cancer Biology<br><b>Course Short Title:</b><br><i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Department (or program if no department):</b> Biology                                                                                                                                                                                                                                                                                        |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Calendar Description:</b><br>Cancer biology examines the genetic, developmental and environmental basis of this disease, and explores current as well as future anti-cancer treatments. Topics to be covered include tumorigenesis, control of the cell cycle, the role of oncogenes, tumor suppressor genes, angiogenesis, metastasis, immunotherapy, and novel approaches to cancer treatment.                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | BIO 201, BIO 202, and BIO 220.                                                                                                                                                                                                                                                                                                                  |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                             |           | <b>Special Topics</b> <i>(Double-click on boxes to select.)</i><br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>                                                                                                   |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                        |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Transfer Credit</b><br>Transfer credit already exists: <i>(See <a href="#">bctransferguide.ca</a>.)</i><br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i> |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>33</td> </tr> <tr> <td>Tutorials/workshops</td> <td>12</td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                                           | 33 | Tutorials/workshops | 12 | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 33        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12        |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Maximum enrolment (for information only):</b> 24<br><b>Expected Frequency of Course Offerings:</b><br>Every other year <i>(Every semester, Fall only, annually, etc.)</i>                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Gregory Schmaltz                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                                                                                         |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                                                                                        |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                        |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |

**BIO 415**
**University of the Fraser Valley Official Undergraduate Course Outline**
**Page 2 of 2**
**Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Discuss the various cellular pathways that lead to oncogenesis.
2. Analyze the common genetic mechanisms that lead to tumor formation.
3. Discuss how mutations in specific oncogenes modify cellular metabolism.
4. Explain how alterations in specific tumor suppressor genes lead to tumor formation.
5. Describe the role that the immune system plays in oncogenesis.
6. Evaluate common therapies including chemotherapy and immunotherapy.
7. Summarize current knowledge in an area of cancer biology.

**Prior Learning Assessment and Recognition (PLAR)**

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

Lectures, demonstrations, small group practice, audio-visual presentation.

**NOTE:** The following sections may vary by instructor. Please see course syllabus available from the instructor.

**Typical Text(s) and Resource Materials** (*If more space is required, download Supplemental Texts and Resource Materials form.*)

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.                         | Publisher | Year |
|----------------------------|--------------------------------------|-------------------------------------|-----------|------|
| 1. Weinberg                | The Biology of Cancer                | <input checked="" type="checkbox"/> | Garland   | 2013 |
| 2.                         |                                      | <input type="checkbox"/>            |           |      |
| 3.                         |                                      | <input type="checkbox"/>            |           |      |
| 4.                         |                                      | <input type="checkbox"/>            |           |      |
| 5.                         |                                      | <input type="checkbox"/>            |           |      |

**Required Additional Supplies and Materials** (*Software, hardware, tools, specialized clothing, etc.*)

**Typical Evaluation Methods and Weighting**

|                |     |                        |      |                   |   |             |      |
|----------------|-----|------------------------|------|-------------------|---|-------------|------|
| Final exam:    | 40% | Assignments:           | %    | Field experience: | % | Portfolio:  | %    |
| Midterm exam   | 20% | Project:(presentation) | 20 % | Practicum:        | % | Term paper: | 20%  |
| Quizzes/tests: | %   | Lab work:              | %    | Shop work:        | % | Total:      | 100% |

**Details (if necessary):**
**Typical Course Content and Topics**

Nature of cancer  
 Tumor viruses  
 Cellular oncogenes  
 Growth factors and their receptors  
 Signaling circuitry  
 Tumor suppressor genes  
 Control of the cell cycle  
 Apoptosis, cell immortalization, and tumorigenesis  
 Angiogenesis and metastasis  
 Tumor immunology  
 Therapies and treatments

**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, BIO Department Head

Date: October 2021

**Subject: Proposal for revision of BIO 416 Evolution**

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

6-year review.

The prerequisites have changed, such that fewer 300 or 400 level courses are required, to allow students to take Biol 416 earlier in their degrees. No other 400-level biology courses have as many required upper-level prerequisites as Biol 416.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

No substantial changes

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

No

5. Which program areas have been consulted about the change(s)?

N/A

6. What consideration has been given to indigenizing the curriculum?

Relevant discussion papers that integrate traditional Indigenous ecological with evolutionary knowledge will be selected for a subset of the seminars

7. If this course is not eligible for PLAR, explain why:

N/A

8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area:
  - a. Credit value
  - b. Class size limit
  - c. Frequency of offering
  - d. Resources required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?  
N/A
10. Estimate of the typical costs for this course, including textbooks and other materials:  
Textbook ~\$120



ORIGINAL COURSE IMPLEMENTATION DATE: January 1997  
 REVISED COURSE IMPLEMENTATION DATE: September 2022  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 05/18/2018

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note:** The University reserves the right to amend course outlines as needed without notice.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|----|-----------------------------|--|--------------------------------------------------------------|--|------------------------------|--|----------------------|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> BIO 416                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                             |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Full Title:</b> Evolution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Course Short Title:</b><br>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Department (or program if no department):</b> Biology                                                                                                                                                                                                                                                                           |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Calendar Description:</b><br>An investigation of the mechanisms and processes of evolution that occur from the molecular to the species level and across a few generations to millennia. Evolutionary analysis will be applied to the study of the history of life, natural selection, sexual selection, speciation, life history characteristics, and contemporary topics such as human medicine and environmental issues.                                                                                     |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | BIO 210, BIO 220, and one 300-level or above Biology course.                                                                                                                                                                                                                                                                       |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Antirequisite Courses</b> (Cannot be taken for additional credit.)<br>Former course code/number:<br>Cross-listed with:<br>Dual-listed with:<br>Equivalent course(s):<br>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)                                                                                                           |           | <b>Special Topics</b> (Double-click on boxes to select.)<br>This course is offered with different topics:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, topic will be recorded when offered.)                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Independent Study</b><br>If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)<br><input type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit                                                             |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Transfer Credit</b><br>Transfer credit already exists: (See <a href="#">bctransferguide.ca</a> .)<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Submit outline for (re)articulation:<br><input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, fill in transfer credit form.) |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>33</td> </tr> <tr> <td>Tutorials/workshops</td> <td>12</td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table> |           | Lecture/seminar hours                                                                                                                                                                                                                                                                                                              | 33 | Tutorials/workshops | 12 | Supervised laboratory hours |  | Experiential (field experience, practicum, internship, etc.) |  | Supervised online activities |  | Other contact hours: |  | <b>Total hours</b> | <b>45</b> | <b>Grading System</b><br><input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit |  |
| Lecture/seminar hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 33        |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12        |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised laboratory hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Experiential (field experience, practicum, internship, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Supervised online activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Other contact hours:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>45</b> |                                                                                                                                                                                                                                                                                                                                    |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Maximum enrolment (for information only):</b> 24<br><b>Expected Frequency of Course Offerings:</b><br>annually (Every semester, Fall only, annually, etc.)                                                                                                                                                                      |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Department / Program Head or Director:</b> Gregory Schmaltz                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                                                                            |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                                                                           |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                           |    |                     |    |                             |  |                                                              |  |                              |  |                      |  |                    |           |                                                                                                                      |  |



**Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Explain the central role of evolutionary theory to all of biology.
2. Summarize the primary evolutionary processes that act at the molecular, organismal and species levels.
3. Apply the principles of population and quantitative genetics to address empirical and theoretical questions in evolutionary biology.
4. Interpret phylogenetic trees and use phylogenetic and other methods to infer the history of biological evolution with genetic and morphological data.
5. Apply evolutionary theory and concepts to empirical, theoretical and contemporary issues in evolutionary biology.
6. Lead and summarize discussions on evolutionary topics.
7. Investigate evolutionary questions using primary literature.

**Prior Learning Assessment and Recognition (PLAR)**

☒ Yes      ☐ No, PLAR cannot be awarded for this course because

**Typical Instructional Methods** (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

A combination of lectures, case studies, small group research, student presentations and written assignments.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Typical Text(s) and Resource Materials** (*If more space is required, download Supplemental Texts and Resource Materials form.*)

| Author (surname, initials) | Title (article, book, journal, etc.) | Current ed.                         | Publisher | Year |
|----------------------------|--------------------------------------|-------------------------------------|-----------|------|
| 1. Futuyma                 | Evolution                            | <input checked="" type="checkbox"/> | Sinauer   | 2017 |
| 2. Herron, Freeman         | Evolutionary Analysis                | <input checked="" type="checkbox"/> | Pearson   | 2017 |
| 3.                         |                                      | <input type="checkbox"/>            |           |      |
| 4.                         |                                      | <input type="checkbox"/>            |           |      |
| 5.                         |                                      | <input type="checkbox"/>            |           |      |

**Required Additional Supplies and Materials** (*Software, hardware, tools, specialized clothing, etc.*)

**Typical Evaluation Methods and Weighting**

|                |     |              |     |                   |   |                       |      |
|----------------|-----|--------------|-----|-------------------|---|-----------------------|------|
| Final exam:    | 25% | Assignments: | 15% | Field experience: | % | Portfolio:            | %    |
| Midterm exam:  | 15% | Term Paper:  | 25% | Practicum:        | % | Seminar presentation: | 10%  |
| Quizzes/tests: | 10% | Lab work:    | %   | Shop work:        | % | Total:                | 100% |

**Details (if necessary):**

**Typical Course Content and Topics**

History of evolutionary thought  
Evidence for evolution  
Phylogenetics  
Mechanisms of evolution  
Population genetics  
Sexual reproduction  
Evolution at multiple loci  
Adaptation  
Senescence and life history  
Sexual selection  
Speciation and macroevolution  
History of life  
Molecular evolution  
Darwinian medicine  
Evolution and the environment

**Memo for New Course**

To: UEC

From: Gregory Schmaltz, Biology Department Head

Date: October 2021

**Subject: Proposal for new course BIO 427 Plants and Drugs**

*There is an expectation that all new courses will meet the Guidelines for Quality Curriculum, including principles of Universal Design for Learning (UDL) and Equity, Diversity, and Inclusion (EDI).*

1. Rationale for new course, including how this course fits into the program(s):

To regularize Bio420G from a special topics course to a regular university course

2. Explain how the course learning outcomes align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

The students will be expected to integrate classical botanical names with those that are culturally relevant in all aspects of written and graphic work. They are encouraged to look at all cultural and scientific information and integrate these into one body of knowledge

Students are encouraged to look at non-scientific areas of knowledge to gain an insight into the influence plants have had on civilization, not just medically but in the context of literature, art and language. The range of knowledge will draw on regional and international practices and information. This will be presented graphically in the form of a poster and orally in the form of a short presentation.

In completion of the course students will have demonstrated competence in the application of current plant biology to those area that are directly and indirectly related. They will then show an appreciation for things that are globally relevant

3. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs?
4. Which program areas have been consulted about the course?
5. If a new discipline designation is required, explain why:

6. In what ways does this course contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

Students will be introduced to current accepted Halq'eméylem names through presentations, readings and information posters. Where applicable the Indigenous name and use of the plant will be presented along with accepted scientific names. Students are encouraged to present findings with application to culture heritage and indigenous ways of use. Current texts will be augmented by resources presently available in the University library and currently published. The use of the University Gardens at CEP - the reconciliation garden and the Indigenous Teaching Garden at UFV Abbotsford will be a focal point for the location of medicinal plants common in our area.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

Traditional medicine specialists from all nations and cultures believe that plants, like people and animals, have their own spirit or life force. Any plant you wish to harvest and use must be treated with great respect. Talking to the plant and asking for its help and permission to harvest it may seem strange to those coming from an urban, Western perspective, but this is standard practice for many Indigenous users of plants and other resources.

There are a number of plants mentioned here that have special ritual applications in ceremonial contexts. The knowledge about these is private and has not been provided, other than an indication that such spiritual significance exists, but only those with the rights to such knowledge have access to it.

On the other hand, cultural knowledge of the day-to-day uses of plants for foods, medicines or in technology is meant to be shared widely and passed on to future generations, for increased understanding and valuing of the plants and the places where they grow.

It is recognized that the private and sacred nature of medicinal plants and other preparations used ceremonially or ritually by many cultures and first nations people. The aim in sharing knowledge about the identity of these plants is to ensure that they are remembered, and that their cultural importance is passed on to the future generations.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.):
9. Estimate of the typical costs for this course, including textbooks and other materials:

Text books are approximately \$CAD40.00 each.



ORIGINAL COURSE IMPLEMENTATION DATE: September 2022  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------|--|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> BIO 427                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Plants and Drugs                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Department (or program if no department):</b> Biology                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>An investigation into the impact plants have on the development of medicinal compounds. How plants influence the cultural use and linguistic terms associated with healing will be an integral part of this course. An analysis of cultural and medicinal impact both indigenous and western will be included.<br><br>Note: Students with credit for BIO 420G cannot take this course for further credit.                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | 60 university-level credits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>BIO 420G</b><br>Cross-listed with:<br>Equivalent course(s): <b>BIO 420G</b><br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                   |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Every other year</b><br>Maximum enrolment (for information only): <b>24</b> |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">45</td> </tr> <tr> <td>Experiential (cultural/elder learning or participation)</td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 45 | Experiential (cultural/elder learning or participation) |  |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 45        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (cultural/elder learning or participation)                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                         |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                          |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval (BIOCC)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Date of meeting:</b> October 1, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date of meeting:</b> November 5, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                                         |  |  |  |  |  |  |  |                    |           |                                                                                               |  |

**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Develop a detailed understanding of basic plant biochemistry and how it relates to plant form, function and metabolism.
2. Describe the biochemical processes that comprise plant primary and secondary metabolism.
3. Identify the roles of various plant metabolites in an evolutionary structure.
4. Evaluate the relationship between drugs and environmental factors in the control of plant growth and development.
5. Discuss how perceptions of drugs have influenced culture, art, language and human interactions through time.
6. Communicate findings in a manner that is accessible to a wide audience in the form of posters or oral presentations.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|                |     |              |     |            |     |
|----------------|-----|--------------|-----|------------|-----|
| Final exam:    | 30% | Assignments: | 10% | Portfolio: | 25% |
| Quizzes/tests: | 20% | Project:     | 15% |            | %   |

**Details:**

**NOTE:** The following sections may vary by instructor. Please see course syllabus available from the instructor.

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type        | Author or description       | Title and publication/access details                                                        | Year |
|-------------|-----------------------------|---------------------------------------------------------------------------------------------|------|
| 1. Textbook | Dauncey, E. and Larsson, S. | Plants that Kill: A Natural History of the World's most Poisonous Plants                    | 2018 |
| 2. Textbook | Dauncey, E. and Howes, M.   | Plants that Cure: Plants as a Source for Medicines, from Pharmaceuticals to Herbal Remedies | 2020 |
| 3. Textbook | Charlie, L. and Turne, N.r  | Luschiim's Plants: Traditional Indigenous Foods, Materials and Medicines                    | 2021 |
| 4. Textbook | Galloway                    | Upper Sto:lo Ethnobotany                                                                    | 1982 |
| 5.          |                             |                                                                                             |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*
**Course Content and Topics**

Week 1: Basic botany and the botanical crime families, identification ecology and distribution  
 Week 2: First Nations plants and medicinals  
 Week 3: The biochemistry synthesis and metabolism of plant compounds, stimulants hallucinogens depressants, compounds that act as both stimulate and depressants  
 Week 4: Metabolic pathways of plant poisons with emphasis on alkaloids, terpenoids, secondary plant products  
 Week 5: Plants, Poisons and Civilization: A Madman and the Gift of an Ear; Oh Pretty Woman (Alkaloids and culture).  
 Week 6: Plants, Poisons and Civilization: The Dulles Brothers and a Shah (Nicotine and the world)  
 Week 7: Plants, Poisons and Civilization: Gregori Markov and an Umbrella (lectins and metabolism)  
 Week 8: Plants, Poisons and Civilization: Sing a Song of Poisons (the use of poisons in literature and song)  
 Week 9: Plants, Poisons and Civilization: That little old lady, her murder mysteries and a Belgian (how an author got biochemistry so correct!)  
 Week 10: Plants, Poisons and Civilization: Out Damn spot! The Bard and Botany (was Shakespeare a biochemist?)  
 Week 11: Student presentations  
 Week 12: Student presentations  
 Week 13: Student presentations

**Memo for Course Changes**

To: UEC

From: Gregory Schmaltz, BIO Department Head

Date: October 2021

**Subject: Proposal for revision of BIOLOGY honours and majors calendar copy**

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course

☒ Other – Please specify:

*Changes were made in the calendar copy to clarify language around directed studies courses, to clarify the requirements for statistics courses (different in honours and majors), and to revise the number of UL electives.*

2. Rationale for change: *some students took several directed studies courses as the major part of their upper level credits which diluted the diversity of courses they were taking.*

*For the biology honours section, UL electives have dropped from 14 to 5 so the honours thesis can be taken within the 120 credits. A few STATS course options have been added.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?

5. Which program areas have been consulted about the change(s)? *BIO Curriculum Committee and BIO Department.*

6. What consideration has been given to indigenizing the curriculum?

*Changes were made to increase flexibility in our honours and major degrees and to decrease completion time for all students.*

7. If this course is not eligible for PLAR, explain why:

- a. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area:
  - b. Credit value
  - c. Class size limit
  - d. Frequency of offering
  - e. Resources required (labs, equipment)
8. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
  9. Estimate of the typical costs for this course, including textbooks and other materials:

**CWC comments and responses:**

- 5 credits of upper-level electives seems like an odd number to include, especially since 3 of those credits must be non-Biology. What is the intention here? Why has 5 credits been chosen as the requirement?

*For elective upper-level requirements, the Bio major requires*

- 24 credits of BIO courses numbered 300 and above,
- 14 credits of upper-level university courses in any discipline, three credits of which must be non-BIO.

*For elective upper-level requirements, the Bio Honours requires*

- Honours Research Thesis BIO 499 (9 credits)
- 24 credits of BIO courses numbered 300 and above
- 5 credits of upper-level university courses in any discipline, three credits of which must be non-BIO

*The 9-credit BIO 499 is thus playing the role of a specification of how 9 of the 14 free upper-level credits in the major are to be selected. (ie. Those 9 credits are not "free".) That leaves 5 free upper-level credits.*

- Does STAT 104 need to be removed from the Honours STAT requirements? It appears that with a high enough grade, it can meet the prerequisite for STAT 271, 272, 307, 330 or 350. (Neither STAT 104 nor STAT 106 meet the prerequisite for STAT 315.)

*Most of our honours students have to do some in depth statistical analysis during their thesis work. We are interested in having students in the honours program with a higher level statistical course so we wanted to eliminate this STAT 104 option.*

- The committee suggests taking this opportunity to remove the discontinued CHEM 111 and CHEM 112. These courses haven't been offered in many years. (These are also still listed in the Biology minors and extended minor and Chemistry major.)

*This is a good suggestion and we are in agreement to remove the mention of CHEM 111 and CHEM 112 in all of our degree programs.*



## Biology Honours

### Program outline

This section specifies the Biology Honours discipline requirements only. Please refer to the [Bachelor of Science](#) section for information on additional requirements (Note that a minimum of 120 credits are required to graduate with a Bachelor of Science).

### Lower-level requirements

| Course                 | Title                                                | Credits        |
|------------------------|------------------------------------------------------|----------------|
| BIO 111                | Introductory Biology I                               | 5              |
| BIO 112                | Introductory Biology II                              | 5              |
| BIO 201                | Cell Biochemistry/Metabolism                         | 4              |
| BIO 202                | Cell Signaling/Gene Regulation                       | 4              |
| BIO 210                | Introductory Ecology                                 | 4              |
| BIO 220                | Genetics                                             | 4              |
| <del>CHEM 111</del>    | <del>Principles of Chemistry I (discontinued)</del>  | <del>4-5</del> |
| <del>or</del> CHEM 113 | Principles of Chemistry I                            | <u>5</u>       |
| <del>CHEM 112</del>    | <del>Principles of Chemistry II (discontinued)</del> | <del>4-5</del> |
| <del>or</del> CHEM 114 | Principles of Chemistry II                           | <u>5</u>       |

|                                                                         |                                                                   |                |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|----------------|
| PHYS 105                                                                | Heat, Waves, and Optics                                           | 5–10           |
| <b>or the combination of:</b>                                           |                                                                   |                |
| PHYS 111                                                                | Mechanics                                                         |                |
| <b>and</b> PHYS 112                                                     | Electricity and Magnetism                                         |                |
| <b>Plus:</b>                                                            |                                                                   |                |
| MATH 111                                                                | Calculus I                                                        | 4              |
| MATH 112                                                                | Calculus II                                                       | 4              |
| <b>or</b> MATH 118                                                      | Calculus II for Life Sciences                                     |                |
| <del>STAT 271</del>                                                     | <del>Introduction to Data Analysis and Statistical Modeling</del> | <del>3–4</del> |
| <del>or Any 200 , 300 , or 400-level biological statistics course</del> |                                                                   |                |
| CHEM 213                                                                | Organic Chemistry I                                               | 4              |
| Plus:                                                                   | An additional CHEM course numbered 200 or above                   | 3–4            |
| <b>One of:</b>                                                          | 4                                                                 |                |
| <del>STAT 104</del>                                                     | <del>Introductory Statistics</del>                                | <del>-</del>   |

|                    |                                            |  |
|--------------------|--------------------------------------------|--|
| STAT 106           | Statistics I                               |  |
| MATH 270/ STAT 270 | Introduction to Probability and Statistics |  |

|                                                                                     |                                                                               |                             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------|
| <b><u>One of:</u></b>                                                               |                                                                               | <u><a href="#">3-43</a></u> |
| <u><a href="#">STAT 271</a></u>                                                     | <u><a href="#">Introduction to Data Analysis and Statistical Modeling</a></u> |                             |
| <u><a href="#">STAT 272</a></u>                                                     | <u><a href="#">Statistical Graphics and Languages</a></u>                     |                             |
| <u><a href="#">STAT 307</a></u>                                                     | <u><a href="#">Data Visualization</a></u>                                     |                             |
| <u><a href="#">STAT 315</a></u>                                                     | <u><a href="#">Applied Regression Analysis</a></u>                            |                             |
| <u><a href="#">STAT 330</a></u>                                                     | <u><a href="#">Design Experiments</a></u>                                     |                             |
| <u><a href="#">STAT 350</a></u>                                                     | <u><a href="#">Survey Sampling</a></u>                                        |                             |
| <u><a href="#">or any 200-, 300-, or 400-level biological statistics course</a></u> | <u><a href="#">(e.g. STAT 307, STAT 315, STAT 330)</a></u>                    |                             |

**Upper-level requirements**

| Course | Title | Credits |
|--------|-------|---------|
|--------|-------|---------|

|                                        |                                                                                                                     |                 |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Two of:</b>                         |                                                                                                                     | 6               |
| BIO 310                                | Conservation Biology                                                                                                |                 |
| BIO 312                                | Developmental Biology                                                                                               |                 |
| BIO 320/ BIOC 320                      | Biochemistry                                                                                                        |                 |
| BIO 416                                | Evolution                                                                                                           |                 |
| <b>Plus:</b> (see Notes <del>1</del> ) |                                                                                                                     |                 |
| BIO 499                                | Honours Research Thesis                                                                                             | 9               |
| Plus:                                  | 24 credits of BIO courses numbered 300 and above (see Note <del>2</del> )                                           | 24              |
| Plus:                                  | <del>5</del> 14 credits of upper-level university courses in any discipline, three credits of which must be non-BIO | <del>14</del> 5 |

~~Note 1: Students who completed MATH 302 prior to September 2012 can use this course toward upper-level requirements.~~

Note ~~2~~: Included in these 24 upper-level BIO credits must be at least eight credits chosen from four-credit BIO courses with labs. Students are NOT allowed to take any directed studies courses as part of the 24 upper-level BIO credit requirement. -Students are allowed to take a maximum of 8 field school credits of BIO 442 as part of the 24 upper-level BIO credit requirement.

Upper-level courses at other institutions may be counted as upper-level Biology transfer credit. See [Courses at other institutions](#) for details.

**Research project**

~~Prior to enrolling in BIO 499, each honours candidate will need to meet with their honours supervisor to assess their progress in the honours program. At this time, the candidate should submit an updated transcript to their supervisor for review.~~

Successful completion of a research project ([BIO499](#)) is required prior to graduation. This project is developed in consultation with a faculty ~~(or research and honours)~~ supervisor and demonstrates students' skill and knowledge in the area of biological research being pursued. ~~Each honours student will then be required to present the findings of their research at a professional or university conference, or at some other venue approved by the HAC.~~

~~Following project completion and presentation, the honours supervisor will recommend a letter grade. The HAC will choose whether or not to accept this grade based on further review of the student's work in BIO 499.~~

## **Biology major**

This section specifies the biology major discipline requirements only. Please refer to the [Bachelor of Science](#) section for information on additional requirements, declaration eligibility, and residency requirements ~~(Note that a minimum of 120 credits are required to graduate with a Bachelor of Science).~~

### **Lower-level requirements**

| Course  | Title                          | Credits |
|---------|--------------------------------|---------|
| BIO 111 | Introductory Biology I         | 5       |
| BIO 112 | Introductory Biology II        | 5       |
| BIO 201 | Cell Biochemistry/Metabolism   | 4       |
| BIO 202 | Cell Signaling/Gene Regulation | 4       |
| BIO 210 | Introductory Ecology           | 4       |
| BIO 220 | Genetics                       | 4       |

|                               |                                                      |                |
|-------------------------------|------------------------------------------------------|----------------|
| <del>CHEM 111</del>           | <del>Principles of Chemistry I (discontinued)</del>  | <del>4–5</del> |
| <del>or</del> CHEM 113        | Principles of Chemistry I                            | <u>5</u>       |
| <del>CHEM 112</del>           | <del>Principles of Chemistry II (discontinued)</del> | <del>4–5</del> |
| <del>or</del> CHEM 114        | Principles of Chemistry II                           | <u>5</u>       |
| PHYS 105                      | Heat, Waves, and Optics                              | 5–10           |
| <b>or the combination of:</b> |                                                      |                |
| PHYS 111                      | Mechanics                                            |                |
| <b>and</b> PHYS 112           | Electricity and Magnetism                            |                |
| <b>Plus:</b>                  |                                                      |                |
| MATH 111                      | Calculus I                                           | 4              |
| MATH 112                      | Calculus II                                          | 4              |
| <b>or</b> MATH 118            | Calculus II for Life Sciences                        |                |
| CHEM 213                      | Organic Chemistry I                                  | 4              |
| Plus:                         | An additional CHEM course numbered 200 or above      | 3–4            |

|                           |                                            |   |
|---------------------------|--------------------------------------------|---|
| <b>One of:</b> (see Note) |                                            | 4 |
| STAT 104                  | Introductory Statistics                    |   |
| STAT 106                  | Statistics I                               |   |
| MATH 270/ STAT 270        | Introduction to Probability and Statistics |   |

Note: Students who completed PSYC 110 prior to September 2012 can use this course toward lower-level requirements.

**Upper-level requirements**

| Course                                  | Title                                                       | Credits |
|-----------------------------------------|-------------------------------------------------------------|---------|
| <b>Two of:</b>                          |                                                             | 6       |
| BIO 310                                 | Conservation Biology                                        |         |
| BIO 312                                 | Developmental Biology                                       |         |
| BIO 320/ BIOC 320                       | Biochemistry                                                |         |
| BIO 416                                 | Evolution                                                   |         |
| <b>Plus:</b> <a href="#">(see Note)</a> |                                                             |         |
| BIO                                     | 24 credits of BIO courses numbered 300 and above (see Note) | 24      |

|       |                                                                                                        |    |
|-------|--------------------------------------------------------------------------------------------------------|----|
| Plus: | 14 credits of upper-level university courses in any discipline, three credits of which must be non-BIO | 14 |
|-------|--------------------------------------------------------------------------------------------------------|----|

Note: Included in these 24 upper-level **BIO** credits must be at least eight credits chosen from four-credit BIO courses with labs. Students are allowed to take a maximum of 6 directed studies credits as part of the 24 upper-level BIO credit requirement. Students are allowed to take a maximum of 8 ~~field school~~ credits of BIO 442 as part of the 24 upper-level BIO credit requirement.

### **Biology major concentrations**

Students who wish to specialize in a sub-discipline of biology or prepare for professional studies as part of their Biology major may choose to complete a concentration in Pre-Medicine/Pre-Veterinary, Ecology and Biology of Organisms, or Cellular, Molecular, and Genetics.

Students may declare their intention to complete a concentration any time after first-year they are approved to the Biology major.

The Biology major may be combined as a concentration with a minor in another discipline (e.g., Cellular, Molecular, and Genetics concentration with a Chemistry minor) or students may wish to complete a double concentration (e.g., Pre-Medicine/Pre-Veterinary with Cellular, Molecular, and Genetics).

Students are strongly advised to consult an Advisor for information on course sequencing prior to starting a concentration.

Note: A special topics course or any other appropriate course can be designated for credit under a particular concentration.

### **Pre-Medicine/Pre-Veterinary concentration**

The Pre-Medicine/Pre-Veterinary concentration does not guarantee admission into a medical or veterinary school program. The concentration requires more course work than is usually required for Canadian medical or veterinary programs. However, the Biology department advises that the courses in this concentration will better prepare students for both writing the Medical College Admissions Test (MCAT) and pursuing a career in medicine or veterinary medicine. Students interested in this concentration should consult with an Advisor for program planning.

The Pre-Medicine/Pre-Veterinary concentration requires completion of the following courses as part of a Biology major or Biology Honours program:



| Course            | Title                                      | Credits |
|-------------------|--------------------------------------------|---------|
| CHEM 214          | Organic Chemistry II                       | 4       |
| BIO 309           | Microbiology I                             | 4       |
| BIO 320/ BIOC 320 | Biochemistry                               | 3       |
| Plus:             | Any two ENGL courses numbered 105 or above | 6       |
| <b>Four of:</b>   |                                            | 12–18   |
| BIO 305           | Anatomy and Physiology of Vertebrates I    |         |
| BIO 306           | Anatomy and Physiology of Vertebrates II   |         |
| BIO 312           | Developmental Biology                      |         |
| BIO 350           | Medical Genetics                           |         |
| BIO 383           | Human Physiology                           |         |
| BIO 385           | Neurobiology                               |         |
| BIO 415           | Cancer Biology                             |         |
| BIO 425           | Introductory Medical Microbiology          |         |

|                                       |                                                                                                                                                                            |  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| BIO 448                               | Immunology                                                                                                                                                                 |  |
| KIN 215                               | Introduction to Biomechanics                                                                                                                                               |  |
| KIN 270                               | Human Physiology I                                                                                                                                                         |  |
| KIN 272<br><a href="#">or KIN 370</a> | Human Physiology II                                                                                                                                                        |  |
| <del>KIN 370</del>                    | <del>Human Physiology II</del>                                                                                                                                             |  |
| BIO                                   | BIO special topics course or directed studies course designed for credit under the Pre-Medicine/Pre-Veterinary concentration (contact the department for more information) |  |

#### **Cellular, Molecular, and Genetics concentration**

In addition to the courses required for a Biology major or Biology Honours, this concentration requires completion of the following:

| Course            | Title             | Credits |
|-------------------|-------------------|---------|
| BIO 320/ BIOC 320 | Biochemistry      | 3       |
| BIO 401           | Molecular Biology | 3       |
| <b>Four of:</b>   |                   | 12–18   |

|                                           |                                                                                                                                  |  |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--|
| BIO 309                                   | Microbiology I                                                                                                                   |  |
| BIO 312                                   | Developmental Biology                                                                                                            |  |
| <a href="#"><u>BIO 333 or BIO 433</u></a> | <a href="#"><u>Bioinformatics I or II</u></a>                                                                                    |  |
| BIO 350                                   | Medical Genetics                                                                                                                 |  |
| BIO 403/ BIO 403                          | Molecular Techniques I                                                                                                           |  |
| BIO 406                                   | Advanced Genetics                                                                                                                |  |
| BIO 407                                   | Applied Biotechnology                                                                                                            |  |
| BIO 414/ BIO 414                          | Genomics                                                                                                                         |  |
| BIO 415                                   | Cancer Biology                                                                                                                   |  |
| BIO 425                                   | Introductory Medical Microbiology                                                                                                |  |
| BIO 448                                   | Immunology                                                                                                                       |  |
| BIO                                       | Special topics course or directed studies course designated for credit under the Cellular, Molecular, and Genetics concentration |  |

**Ecology and Biology of Organisms concentration**

In addition to the courses required for a Biology major or Biology Honours, this concentration requires completion of the following:

| Course            | Title                                    | Credits |
|-------------------|------------------------------------------|---------|
| BIO 310           | Conservation Biology                     | 3       |
| BIO 416           | Evolution                                | 3       |
| <b>Four of:</b>   |                                          | 12–18   |
| BIO 301           | Anatomy and Physiology of Invertebrates  |         |
| BIO 305           | Anatomy and Physiology of Vertebrates I  |         |
| BIO 306           | Anatomy and Physiology of Vertebrates II |         |
| BIO 307           | Anatomy and Diversity of Plants          |         |
| BIO 308           | Plant Physiology                         |         |
| BIO 312           | Developmental Biology                    |         |
| BIO 319/ GEOG 319 | Swamps and Bogs                          |         |
| BIO 330           | Plants and Animals of British Columbia   |         |
| BIO 335/ GEOG 335 | Methods in Freshwater Ecology            |         |

|                    |                                                                                                                                 |   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------|---|
| BIO 340            | Population and Community Ecology                                                                                                |   |
| BIO 357/ GEOG 357  | Conservation GIS                                                                                                                |   |
| BIO 360            | Insect Biology                                                                                                                  |   |
| BIO 370            | Introduction to Mycology                                                                                                        |   |
| BIO 380            | Ornithology                                                                                                                     |   |
| <del>BIO 385</del> | <del>Neurobiology</del>                                                                                                         | - |
| BIO 390            | Animal Behaviour                                                                                                                |   |
| BIO 410/ GEOG 410  | Plant Ecology                                                                                                                   |   |
| BIO 419/ GEOG 419  | Paleoecology                                                                                                                    |   |
| BIO 426            | Environmental Microbiology                                                                                                      |   |
| BIO 430            | Forest Ecology                                                                                                                  |   |
| BIO 477/IPK 477    | Traditional Ecological Knowledges                                                                                               |   |
| BIO                | Special topics course or directed studies course designated for credit under the Ecology and Biology of Organisms concentration |   |

**Biology extended minor (for BA students)**

**Lower-level requirements**

| Course                    | Title                                                | Credits        |
|---------------------------|------------------------------------------------------|----------------|
| BIO 111                   | Introductory Biology I                               | 5              |
| BIO 112                   | Introductory Biology II                              | 5              |
| <del>CHEM 111</del>       | <del>Principles of Chemistry I (discontinued)</del>  | <del>4-5</del> |
| <del>or</del> CHEM 113    | Principles of Chemistry I                            | <u>5</u>       |
| <del>CHEM 112</del>       | <del>Principles of Chemistry II (discontinued)</del> | <del>4-5</del> |
| <del>or</del> CHEM 114    | Principles of Chemistry II                           | <u>5</u>       |
| CHEM 213                  | Organic Chemistry I                                  | 4              |
| Plus:                     | An additional CHEM course numbered 200 or above      | 3-4            |
| <b>Two of:</b> (see Note) |                                                      | 8              |
| BIO 201                   | Cell Biochemistry/Metabolism                         |                |
| BIO 202                   | Cell Signaling/Gene Regulation                       |                |
| BIO 210                   | Introductory Ecology                                 |                |

|                    |                                            |     |
|--------------------|--------------------------------------------|-----|
| BIO 220            | Genetics                                   |     |
| <b>One of:</b>     |                                            | 3–4 |
| STAT 104           | Introductory Statistics                    |     |
| STAT 106           | Statistics I                               |     |
| MATH 270/ STAT 270 | Introduction to Probability and Statistics |     |
| PSYC 110           | Applied Statistical Analysis in Psychology |     |

Note: Students should choose appropriately in order to satisfy upper-level course prerequisites. It is highly recommended that students contact an advisor prior to making their course selections.

### **Biology minor (for BSc students)**

#### **Lower-level requirements**

| Course                 | Title                                               | Credits        |
|------------------------|-----------------------------------------------------|----------------|
| BIO 111                | Introductory Biology I                              | 5              |
| BIO 112                | Introductory Biology II                             | 5              |
| <del>CHEM 111</del>    | <del>Principles of Chemistry I (discontinued)</del> | <del>4–5</del> |
| <del>or</del> CHEM 113 | Principles of Chemistry I                           | <u>5</u>       |

|                             |                                                      |                |
|-----------------------------|------------------------------------------------------|----------------|
| <del>CHEM 112</del>         | <del>Principles of Chemistry II (discontinued)</del> | <del>4-5</del> |
| <del>or</del> CHEM 114      | Principles of Chemistry II                           | <u>5</u>       |
| CHEM 213                    | Organic Chemistry I                                  | 4              |
| Plus:                       | An additional CHEM course numbered 200 or above      | 3-4            |
| <b>Two of:</b> (see Note 1) |                                                      | 8              |
| BIO 201                     | Cell Biochemistry/Metabolism                         |                |
| BIO 202                     | Cell Signaling/Gene Regulation                       |                |
| BIO 210                     | Introductory Ecology                                 |                |
| BIO 220                     | Genetics                                             |                |
| <b>One of:</b> (see Note 2) |                                                      | 4              |
| STAT 104                    | Introductory Statistics                              |                |
| STAT 106                    | Statistics I                                         |                |
| MATH 270/ STAT 270          | Introduction to Probability and Statistics           |                |

Note 1: Students should choose appropriately in order to satisfy upper-level course prerequisites. It is highly recommended that students contact an advisor prior to making their course selections.



Note 2: Students who completed PSYC 110 prior to September 2012 can use this course toward lower-level requirements.

### **Biology minor (for BKin students)**

#### **Lower-level requirements**

| <b>Course</b>             | <b>Title</b>                                         | <b>Credits</b> |
|---------------------------|------------------------------------------------------|----------------|
| BIO 111                   | Introductory Biology I                               | 5              |
| BIO 112                   | Introductory Biology II                              | 5              |
| <del>CHEM 111</del>       | <del>Principles of Chemistry I (discontinued)</del>  | <del>4–5</del> |
| <del>or</del> CHEM 113    | Principles of Chemistry I                            | <u>5</u>       |
| <del>CHEM 112</del>       | <del>Principles of Chemistry II (discontinued)</del> | <del>4–5</del> |
| <del>or</del> CHEM 114    | Principles of Chemistry II                           | <u>5</u>       |
| BIO 201                   | Cell Biochemistry/Metabolism                         | 4              |
| BIO 202                   | Cell Signaling/Gene Regulation                       | 4              |
| CHEM 213                  | Organic Chemistry I                                  | 4              |
| Plus:                     | An additional CHEM course numbered 200 or above      | 3–4            |
| <b>One of:</b> (see Note) |                                                      | 4              |

|                    |                                            |  |
|--------------------|--------------------------------------------|--|
| STAT 104           | Introductory Statistics                    |  |
| STAT 106           | Statistics I                               |  |
| MATH 270/ STAT 270 | Introduction to Probability and Statistics |  |

Note: Students who completed PSYC 110 prior to September 2012 can use this course toward lower-level requirements.

**Memo for Program Changes****To:** PRE-UEC**From:** Michelle Rhodes, Director, Integrated and General Studies, Transfer & Partnerships (COA)**Date:** 23 November 2021**Subject: Program change (Batch 1): Bachelor of Integrated Studies (BIS) Effective Communications Competency Requirements**

## 1. Summary of changes (select all that apply):

- ☐ Program revision that requires new resources
- ☒ Addition of new course options or deletion or substitution of a required course
- ☐ Change to the majority of courses in an approved program
- ☐ Change to the duration, philosophy, or direction of a program
- ☐ Addition of a new field of specialization, such as a concentration
- ☐ Change in requirements for admission
- ☐ Change in requirements for residency or continuance
- ☐ Change in admission quotas
- ☐ Change which triggers an external review
- ☐ Deletion of a program not included in the Program Discontinuance policy
- ☒ Other – Please specify:
  - Deletion of course options under Effective Communication competency requirements

## 2. Rationale for change(s):

**Change 1: Remove CMNS 115 from the *Effective Communications* Competency requirement**

Course has been discontinued.

**Change 2: Addition of ENGL 105 to meet the 2<sup>nd</sup> *Effective Communications* Competency requirement**

ENGL 105 was approved as a core Communications Competency requirement and should have been included as an option to meet the 2<sup>nd</sup> Communications Competency requirement (primarily for students who take CMNS 125 to meet their first).

**Change 3: Change of wording, re: language to the 2<sup>nd</sup> *Effective Communications* Competency requirement**

“Any 100-level or above CMNS course.” Any Communications course at the 100-level or above will meet this requirement. Transfer students may come in with CMNS 1xx, and this change reduces the need for exceptions to be made. The Communications department was consulted prior to this language being approved by the IGSPC.

**Change 4: Addition of MGMT 320 to meet the 2<sup>nd</sup> *Effective Communications Competency* requirement**

The IGSPC has reviewed this course and determined it meets the learning outcomes for the 2<sup>nd</sup> Communications Competency requirement.

**Change 5: Addition of note 2, to *Effective Communications Competency***

“A single course in Communications or English can be used to meet only one program requirement.”

3. If program outcomes are new or substantially changed, explain how they align with the Institutional Learning Outcomes:  
No PO additions or changes
4. What consideration has been given to indigenizing the curriculum?  
None additional at this time.
5. Will additional resources be required? If so, how will these costs be covered?  
No additional resources required.
6. How will students be impacted? (Indicate the projected number of students impacted.) Is the change expected to increase/decrease enrolment in the program?  
These additions will increase student options and flexibility for program completion and reduce requests for exceptions through generated through student appointments with the Academic Advising Centre.
7. Does the number of required core or elective credits from the program-specific discipline change? If so, will this change the total number of courses to be offered within the discipline?  
No change to number of credits required.
8. Identify any available resources that will be used to accommodate the program changes. (Eg. seats in existing classes, conversion of sections, timetabling changes, deletion of courses, etc.)  
No additional resources required.
9. Is the number of required or elective courses from other disciplines in the program changing? If so, what is the estimated impact to enrolments in these courses? Provide a memo from the respective dean(s) of the impacted faculty to confirm if budgetary implications have been considered and addressed.

Impact on enrollments is expected to be minimal. Changes are expected to reduce the need for program exceptions due to transfer and through request. Student demand will shift between Communications courses due to increased choice.

Students completing MGMT 320 do so as part of the Applied Management Concentration. Including this as an option to meet this degree requirement will not generate new demand above and beyond that already created by the Concentration itself.

10. Provide a memo from the program's dean to confirm that budgetary implications of the proposed changes have been considered and will be addressed within the faculty budget.

No new budgetary implications

**Memo for Program Changes****To:** PRE-UEC**From:** Michelle Rhodes, Director, Integrated and General Studies, Transfer & Partnerships (COA)**Date:** 23 November 2021**Subject: Program changes (Batch 2): Bachelor of Integrated Studies (BIS) Digital, Intercultural, Scientific, and Numerical Competency Requirement Options**

1. Summary of changes (select all the apply):

- ☐ Program revision that requires new resources
- ☒ Addition of new course options or deletion or substitution of a required course
- ☐ Change to the majority of courses in an approved program
- ☐ Change to the duration, philosophy, or direction of a program
- ☐ Addition of a new field of specialization, such as a concentration
- ☐ Change in requirements for admission
- ☐ Change in requirements for residency or continuance
- ☐ Change in admission quotas
- ☐ Change which triggers an external review
- ☐ Deletion of a program not included in the Program Discontinuance policy
- ☒ Other – Please specify:
  - Deletion of course options under competency requirements
  - Revised language regarding use of language courses

2. Rationale for change(s):

**Digital Competency****Change 1: Addition of CMNS 126, 300, 301, 320, 390, 399d to meet the *Digital Competency* requirement**

The IGSPC has reviewed these courses and determined that they meet the BIS learning outcomes for the Digital Competency requirement.

**Change 2: Remove CMNS 376/ MACS 376 from the *Digital Competency* requirement**

Course has been discontinued.

**Use and Interpretation of Numerical Competency****Change 3: Addition of all courses in STAT 100 or higher to the 2<sup>nd</sup> *Additional Use and Interpretation of Numerical Data* requirement**

“Any STAT course 100 or higher”. Any Statistics course at the 100-level or above will meet this requirement. Transfer students may come in with STAT 1xx, and this change reduces the need for exceptions to be made.

**Change 4: Addition of CRIM 220 to meet the 2<sup>nd</sup> Additional Use and Interpretation of Numerical Data requirement**

The IGSPC has reviewed this course and determined it meets the learning outcomes for the 2<sup>nd</sup> Additional Use and Interpretation of Numerical Data Competency requirement. The School of Criminology was consulted prior to this course being approved for addition to the program by the IGSPC.

**Change 5: Addition of MGMT 340 to meet the 2<sup>nd</sup> Additional Use and Interpretation of Numerical Data requirement**

The IGSPC has reviewed this course and determined it meets the learning outcomes for the 2<sup>nd</sup> Additional Use and Interpretation of Numerical Data Competency requirement.

**Change 6: Addition of note to Use and Interpretation of Numerical Data requirement**

“A single STAT course can be used to meet only one program requirement.” This note is added to deter double-dipping, as most students already complete a STAT course for part of this requirement.

Scientific Practice Competency

**Change 6: Addition of AGRI 238 to meet the Scientific Practice Competency requirement**

The IGSPC has reviewed this course and determined it meets the learning outcomes for the Scientific Practice Competency requirement. The chair of the Agriculture department was consulted prior to this course being approved for addition to the program by the IGSPC.

Intercultural Engagement Competency

**Change 7: Remove “EAP054 or higher” from the Intercultural Competency requirement and revise language to read “EAP 056 or higher.”**

The IGSPC has reviewed this course and consulted with the department delivering it. The committee has determined that this EAP054 does not sufficiently meet the learning outcomes for the Intercultural Competency requirement.

3. If program outcomes are new or substantially changed, explain how they align with the Institutional Learning Outcomes:  
No PO additions or changes
4. What consideration has been given to indigenizing the curriculum?

None additional at this time

5. Will additional resources be required? If so, how will these costs be covered?

No additional costs anticipated.

6. How will students be impacted? (Indicate the projected number of students impacted.) Is the change expected to increase/decrease enrolment in the program?

These additions will increase student options and flexibility for program completion, including for transfer students, and reduce requests for exceptions through the Academic Advising Centre.

The removal of EAP 054 is not expected to impact students in the program. Students taking EAP 054 would subsequently take higher level EAP courses in order to be successful in university-level courses.

7. Does the number of required core or elective credits from the program-specific discipline change? If so, will this change the total number of courses to be offered within the discipline?

No change to number of credits required.

8. Identify any available resources that will be used to accommodate the program changes. (Eg. seats in existing classes, conversion of sections, timetabling changes, deletion of courses, etc.)

No additional resources required.

9. Is the number of required or elective courses from other disciplines in the program changing? If so, what is the estimated impact to enrolments in these courses? Provide a memo from the respective dean(s) of the impacted faculty to confirm if budgetary implications have been considered and addressed.

In part because students have many course options that they can draw upon to meet program requirements, impact on enrollments in most courses is expected to range from negligible (EAP 054) to minimal (e.g., CRIM 220).

Changes are expected to reduce the need for program exceptions due to transfer and through request. Student demand will shift between Communications courses due to increased choice.

Students completing MGMT 340 do so as part of the Applied Management Concentration. Including this as an option to meet this degree requirement will not generate new demand above and beyond that already created by the Concentration itself.

10. Provide a memo from the program's dean to confirm that budgetary implications of the proposed changes have been considered and will be addressed within the faculty budget.



No new budgetary implications

# Bachelor of Integrated Studies degree

## Program requirements

There are sets of requirements for the BIS.

1. [Degree, breadth, and portfolio requirements](#)
2. [Core competencies requirements](#)
3. Electives for the General option, minor(s), or Theme

## Degree, breadth, and portfolio requirements

To receive a Bachelor of Integrated Studies degree students must complete the following minimum requirements:

- 120 credits with a minimum cumulative grade point average (CGPA) of 2.00, of which 30 must be completed at UFV.
- 45 upper-level credits, of which 24 are completed at UFV.
- CGPA of 2.00 in the BIS degree.
- CGPA in courses for minor(s), as specified by minor program.
- CGPA of 2.00 in all upper-level credits.
- The 120 credits must incorporate the breadth requirement.

In addition, students must complete the following two requirements:

- **Breadth requirement:** Completion of one or more courses in each of at least six separate disciplines, as identified by course prefix (e.g. AGRI, ANTH, ASTR, BIO, BUS, etc.).
- **E-Portfolio requirement:** Completion of PORT 398 and PORT 399.

## Core competencies requirements

1. [Effective Communications](#)
2. [Use and Interpretation of Numerical Data](#)
3. [Scientific Practice](#)
4. [Digital Competency](#)
5. [Intercultural Engagement](#)
6. [Professional Competency](#)

### 1. Effective communications

| Core competency       | Requirement          |
|-----------------------|----------------------|
| Written communication | CMNS 125 or ENGL 105 |

One of: (see Note [2](#))

**Additional written,  
oral, or visual  
communication**

- ABT 135, AH 100, AH 101, AH 102, AH 204, ~~CMNS 115,~~  
~~CMNS 120, CMNS 175, CMNS 235, CMNS 251, CMNS~~  
~~300/JRNL 300~~, ENGL 104, ~~ENGL 105~~, ENGL 200, ENGL 208,  
ENGL 210, ENGL 211, ENGL 212, ENGL 213, ENGL 214,  
ENGL 215, GD 101, GD 102, GD 157, GEOG 257/CMNS 257,  
HSER 120, ~~JRNL 300~~, MEDA 222, MEDA 260, ~~MGMT 320~~,  
SOC 254, THEA 111, THEA 112, VA 113, VA 115, VA 116,  
VA 160, or VA 180
- ~~Any 100-level or higher CMNS course 120 or higher~~
- Any 100-level or higher course taught in a language other than English, including beginning and introductory language courses
- Or completion of one of the following credentials:
  - [Aboriginal Culture and Language Support diploma](#)
  - [Paralegal certificate](#)
  - [Paralegal diploma](#)
  - [Records Management certificate](#)

Note [1](#): Any 100-level or higher course taught in a language other than English, including beginning and introductory language courses, can be used to meet either the Effective Communications requirement or the Intercultural Engagement requirement. A single language course can ~~only~~ be used to meet ~~only~~ one requirement, but students may choose to complete an additional language course to meet another requirement.

[Note 2: A single Communications or English course can only be used to meet only one program requirement.](#)

**2. Use and interpretation of numerical data**

**Core competency**

**Statistics**

**Requirement**

One of: STAT 104, STAT 106, or PSYC 110

One of:

**Additional use and  
interpretation of  
numerical data**

- ~~BUS 143, BUS 144, BUS 145, BUS 226, CRIM 220, CRIM 320, ECON 100, ECON 101, GEOG 252, GEOG 253, MATH 100-level or higher, MGMT 340, PSYC 202, SOC 255/ANTH 255/MACS 255~~
- ~~Any 100-level or higher STAT course 100 or higher (See Note)~~
- Or completion of one of the following credentials:
  - [Architectural Drafting Technician certificate](#)
  - [Automation and Robotics Technician diploma](#)
  - [Bookkeeping for Small Business certificate](#)
  - [Carpentry certificate](#)

- [Construction Electrician certificate](#)
- [Electronics Technician certificate](#)

Note: A single STAT course can only be used to meet only one program requirement.

### 3. Scientific practice

| Core competency       | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | One of: (see Note)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Scientific competency | <ul style="list-style-type: none"> <li>• AGRI 123, AGRI 124, AGRI 129, AGRI 163, <a href="#">AGRI 238</a>, ASTR 103, ASTR 104, BIO 100-level or higher, CHEM 100-level or higher, GEOG 103, GEOG 116, HSC 111, KIN 163, KIN 170, PHYS 100-level or higher, or PSYC 202</li> <li>• Or completion of one of the following credentials: <ul style="list-style-type: none"> <li>○ <a href="#">Automation and Robotics Technician diploma</a></li> <li>○ <a href="#">Construction Electrician certificate</a></li> <li>○ <a href="#">Electronics Technician certificate</a></li> <li>○ <a href="#">Practical Nursing diploma</a></li> </ul> </li> </ul> |

Note: Teacher education programs will have more specific lab science requirements. Students planning on continuing on to Teacher Education programs should check with those programs' admissions requirements.

### 4. Digital competency

| Core competency    | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | One of:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Digital competency | <ul style="list-style-type: none"> <li>• ADED 380, ADED 414, BUS 160/CIS110, CIS 100 or higher, <a href="#">CMNS 126</a>, <a href="#">CMNS 300</a>, <a href="#">CMNS 301</a>, <a href="#">CMNS 320</a>, <a href="#">CMNS 390</a>, <a href="#">CMNS 399d</a>, <a href="#">COMP 120 or higher</a>, CMNS 251, CMNS 375, <del>CMNS 376/MACS 376</del>, <a href="#">COMP 120 or higher</a>, ENGR 151, Any GD course except GD 102, GEOG 253, GEOG 300J, GEOG 300N, GEOG 357/BIO 357, VA 119, VA 160, VA 180, VA 271, or VA 365/FILM 365/JRNL 365</li> <li>• Or completion of one of the following credentials: <ul style="list-style-type: none"> <li>○ <a href="#">Applied Business Technology certificate</a></li> <li>○ <a href="#">Architectural Drafting Technician certificate</a></li> <li>○ <a href="#">Automation and Robotics Technician diploma</a></li> <li>○ <a href="#">Bookkeeping for Small Business certificate</a></li> <li>○ <a href="#">Electronics Technician certificate</a></li> <li>○ <a href="#">Legal Administrative Assistant certificate</a></li> </ul> </li> </ul> |

- [Library and Information Technology diploma](#)
- [Medical Office Assistant certificate](#)
- [Paralegal certificate](#)
- [Paralegal diploma](#)
- [Records Management certificate](#)
- Or portfolio demonstration of having met competency outcomes through professional or related experience. See [BIS website](#) for more information on using portfolios to demonstrate competency requirements.

## 5. Intercultural engagement

### Core competency

### Requirement

One of:

### Intercultural engagement

- ANTH 111, CMNS 180, EDUC 290, EDUC 291, ENGL 228, GDS 250/SOC 250, GEOG 312, GEOG 346, GEOG 466/GD 466, HIST 103, HIST 396O, IDS 300F, IDS 400D, IDS 400E, LAS 200/SOC 200, PACS 200, or SOC 250/GDS 250 (see Note 1)
- EAP 0564 or higher (see Note 2)
- FNST 100 or higher
- IPK 102 or higher
- Any 100-level or higher course taught in a language other than English, including beginning and introductory language courses ([see Note 3](#))
- GDS 311/GEOG 398/SOC 398, or approved, relevant internship or practicum (see Note [4 3](#))
- Or portfolio demonstration of having met competency outcomes through professional or related experience. See [BIS website](#) for more information on using portfolios to demonstrate competency requirements.

Note 1: Some sections of IDS 300 or IDS 400 may be used to meet this requirement, depending on topic. Students interested in using an IDS 300 or IDS 400 course should check with their BIS advisor.

Note 2: EAP courses are considered developmental level and are not awarded university credit.

Note [3 2](#): Note: Any 100-level or higher course taught in a language other than English, including beginning and introductory language courses, can be used to meet either the Effective Communications requirement or the Intercultural Engagement requirement. A single language course can ~~only~~ be used to meet ~~only~~ one requirement, but students may choose to complete an additional language course to meet another requirement.

Note 4.3: A single internship or practicum can be used to meet the Intercultural Engagement requirement or the Professional Competency requirement, but not both. Students have the option of completing more than one internship or practicum in their program, in which case each placement can be used to meet a separate requirement.

## **6. Professional competency**

Successful completion of one of the following:

- One or more terms of Cooperative Education
- Credited Internship or Practicum in any discipline
- Credited Study Tour (four or more credits)
- Three verified Co-Curricular Record (CCR) experiences, or 60 hours of CCR
- 60 hours of Co-Curricular Record experience
- Completion of a post-secondary Professional program (e.g. TESL, Dental Hygiene, Veterinary Technologist) related to learning goals set out in the Individual Learning Plan and leading to professional designation or accreditation
- Completion of Continuing Education programs that have a practicum component (e.g. Activity Assistant, Legal Administration, Medical Office Assistant, Public Relations, Records Management, Veterinary Assistant).
- Completion of Continuing Education programs in:
  - Bookkeeping for Small Business
  - Coding Bridging
  - Human Resources Management
  - Library Technology Post-diploma
  - Management Skills for Supervisors
  - Paralegal certificate
  - Paralegal diploma
- Demonstration, through application and e-Portfolio, of sufficient prior work or volunteer experience relevant to learning goals set out in Individual Learning Plan. See [BIS website](#) for more information.

**Memo for Program Changes****To:** PRE-UEC**From:** Michelle Rhodes, Director, Integrated and General Studies, Transfer & Partnerships (COA)**Date:** 23 November 2021**Subject:** Program change: General Studies Diploma**1. Summary of changes (select all the apply):**

- ☐ Program revision that requires new resources
- ☒ Addition of new course options or deletion or substitution of a required course
- ☐ Change to the majority of courses in an approved program
- ☐ Change to the duration, philosophy, or direction of a program
- ☐ Addition of a new field of specialization, such as a concentration
- ☐ Change in requirements for admission
- ☐ Change in requirements for residency or continuance
- ☐ Change in admission quotas
- ☐ Change which triggers an external review
- ☐ Deletion of a program not included in the Program Discontinuance policy
- ☒ Other – Please specify:
  - Notes added to calendar
  - Remove of discontinued courses

**2. Rationale for change(s):****Effective Communications****Change 1: Addition of ENGL 105 to meet the 2<sup>nd</sup> *Effective Communications* Competency requirement**

ENGL 105 was approved as a core Communications Competency requirement and should have been approved as a 2<sup>nd</sup> Communications Competency requirement.

**Change 2: Remove CMNS 115 from the *Effective Communications* Competency**

Course has been discontinued.

**Change 3: Change of wording, re: language to the 2<sup>nd</sup> *Effective Communications* Competency requirement**

“Any CMNS course 120 or higher.” The Communications department was consulted prior to this language being approved by the IGSPC.

**Change 4: Addition of note 2, to *Effective Communications* Competency**

“A single course can be used to meet only one program requirement.”

*Use and Interpretation of Data***Change 5: Addition of CRIM 220 to meet the *Use and Interpretation of Numerical Data* requirement**

The IGSPC has reviewed this course and determined it meets the learning outcomes for the Use and Interpretation of Numerical Data Competency requirement. The School of Criminology was consulted prior to this course being approved by the IGSPC.

*Digital Competency***Change 6: Addition of CMNS 126, 300, 301, 320, 390, 399d to meet the *Digital Competency* requirement.**

The IGSPC has reviewed these courses and determined that they meet the learning outcomes for the Digital Competency requirement. The Communications department was consulted prior to these courses being reviewed by the IGSPC.

**Change 7: Remove CMNS 376/ MACS 376 from the *Digital Competency* requirement**

Courses have been discontinued.

*Scientific Practice***Change 8: Addition of AGRI 238 to meet the *Scientific Practice* Competency requirement**

The IGSPC has reviewed this course and determined it meets the learning outcomes for the Scientific Practice Competency requirement. The Agriculture department was consulted prior to this language being approved by the IGSPC.

3. If program outcomes are new or substantially changed, explain how they align with the Institutional Learning Outcomes:

No PO additions or changes

4. What consideration has been given to indigenizing the curriculum?

None additional at this time

5. Will additional resources be required? If so, how will these costs be covered?

No additional costs anticipated



6. How will students be impacted? (Indicate the projected number of students impacted.) Is the change expected to increase/decrease enrolment in the program?

These additions will increase student options and flexibility for program completion and reduce requests for exceptions through generated through student appointments with the Academic Advising Centre.

7. Does the number of required core or elective credits from the program-specific discipline change? If so, will this change the total number of courses to be offered within the discipline?

No change to number of credits required.

8. Identify any available resources that will be used to accommodate the program changes. (Eg. seats in existing classes, conversion of sections, timetabling changes, deletion of courses, etc.)

No additional resources required.

9. Is the number of required or elective courses from other disciplines in the program changing? If so, what is the estimated impact to enrolments in these courses? Provide a memo from the respective dean(s) of the impacted faculty to confirm if budgetary implications have been considered and addressed.

Impact on enrollments is expected to be minimal. Changes are expected to reduce the need for program exceptions due to transfer and through request. In meeting *Effective Communications* and/or *Digital Competency*, student demand will shift between Communications courses due to increased choice but will not necessarily represent new demand. (Communications courses are already very popular among GS Diploma students.) Demand for CRIM 220 may increase slightly but negligibly; demand is kept in check by virtue of the multiple pre-requisites on the course, and thus, the course would only be an option for a small number of GSD students. Re: AGRI 238, IGS has also worked with Agriculture to look for courses in which diploma students may be more likely to take, as a strategy to increase enrolment in some Agriculture courses. This course (on equine production and management) may appeal to a small subset of GSD students, but very few diploma students have taken this course previously.

10. Provide a memo from the program's dean to confirm that budgetary implications of the proposed changes have been considered and will be addressed within the faculty budget.

No new budgetary implications

# General Studies diploma

## Program requirements

The General Studies diploma requires:

- A minimum of 60 credits in courses numbered at the 100 level or higher.
- A minimum of 24 credits in courses numbered at the 200 level or higher.
- Successful completion of courses in at least four distinct disciplines.
- Demonstration of having met the following Core Competencies.

### Core Competency Requirement

#### Effective communication

CMNS 125 or ENGL 105

One of:

- ABT 135, AH 100, AH 101, AH 102, AH 204, ~~CMNS 115, CMNS 175, CMNS 235, CMNS 251, CMNS 300~~/JRNL 300, ENGL 104, ENGL 105, ENGL 208, ENGL 210 to ENGL 215, GD 101, GD 102, GD 157, GEOG 257/CMNS 257, HSER 120, MEDA 222, MEDA 260, SOC 254, THEA 111, THEA 112, VA 113, VA 115, VA 116, VA 160, or VA 180
- Any CMNS course 120 or higher.
- Any 100-level or above course taught in a language other than English, including beginning and introductory language courses
- Or completion of one of the following credentials:
  - [Aboriginal Culture and Language Support diploma](#)
  - [Paralegal certificate](#)
  - [Paralegal diploma](#)
  - [Records Management certificate](#)

Note 1: A single course in Communications or English can ~~only~~ be used to meet only one program requirement.

#### Additional written, oral, or visual communication

One of:

- BUS 143, BUS 144, BUS 145, BUS 226, ~~CRIM 220~~, CRIM 320, ECON 100, ECON 101, GEOG 252, GEOG 253, MATH 100-level or higher, PSYC 110, PSYC 202, SOC 255/MACS 255/ANTH 255, or STAT 100-level or higher (see Note 1).
- Or completion of one of the following credentials:
  - [Architectural Drafting Technician certificate](#)
  - [Automation and Robotics Technician diploma](#)
  - [Bookkeeping for Small Business certificate](#)

#### Use and interpretation of numerical data

- [Carpentry certificate](#)
- [Construction Electrician certificate](#)
- [Electronics Technician certificate](#)
- [Hospitality and Event Management Post-baccalaureate certificate](#) (unavailable until further notice)

**And one of the two following competencies:**

One of:

**Scientific practice**

- AGRI 123, AGRI 124, AGRI 129, AGRI 163, [AGRI 238](#), ASTR 103, ASTR 104, BIO 100-level or higher, CHEM 100-level or higher, GEOG 103, GEOG 116, HSC 111, KIN 163, KIN 170, PHYS 100-level or higher, or PSYC 202
- Or completion of one of the following credentials:
  - [Automation and Robotics Technician diploma](#)
  - [Construction Electrician certificate](#)
  - [Electronics Technician certificate](#)
  - [Practical Nursing diploma](#)

One of:

**Digital competency**

- Course in digital competency:
  - ADED 380 or ADED 414
  - BUS 160/CIS 110
  - CIS 100 or higher
  - COMP 120 or higher
  - ~~CMNS 126, 251, 300, 301, 320, 390, 399d and~~ CMNS 375, ~~or CMNS 376~~
  - ENGR 151
  - Any GD course except GD 102
  - GEOG 253, GEOG 300J, GEOG 300N, or GEOG 357
  - VA 119, 160, VA 180, VA 271, or VA 365
- Or completion of one of the following credentials:
  - [Applied Business Technology certificate](#)
  - [Architectural Drafting Technician certificate](#)
  - [Automation and Robotics Technician diploma](#)
  - [Bookkeeping for Small Business certificate](#)
  - [Electronics Technician certificate](#)
  - [Legal Administrative Assistant certificate](#)
  - [Library and Information Technology diploma](#)
  - [Medical Office Assistant certificate](#)
  - [Paralegal certificate](#)
  - [Paralegal diploma](#)
  - [Records Management certificate](#)

- Or portfolio demonstration of having met competency outcomes through professional or related experience. See [BIS website](#) for more information on using portfolios to demonstrate competency requirements.

Note 1: STAT 104 or STAT 106 is recommended for students planning on continuing into the Bachelor of Integrated Studies degree.

Note 2: Individual courses can ~~only~~ be used to meet only one competency.

Advisors can assist students in developing individual educational plans. An advising appointment can help students refine their goals and objectives, understand available choices, and select courses which will apply to the intended program. Students wishing to apply to the [Bachelor of Integrated Studies](#) after completion of the General Studies diploma should familiarize themselves with additional BIS requirements. Contact Advising at [advising@ufv.ca](mailto:advising@ufv.ca).

Note: Students may enrol in courses for which they meet the prerequisites. Some courses may be more difficult to gain access to as seats are reserved for students admitted to a particular program. General Studies students may be able to enrol in these courses if there are vacancies in courses after program students have registered. Refer to the course descriptions for prerequisite information.

**Memo for New Course**

To: School of Business

From: Mark Breedveld, Chair of Program Working Group for Professional Sales Minor

Date: October 20, 2021

**Subject: Proposal for new course BUS 491 Professional Sales Practicum**

*There is an expectation that all new courses will meet the Guidelines for Quality Curriculum, including principles of Universal Design for Learning (UDL) and Equity, Diversity, and Inclusion (EDI).*

**1. Rationale for new course, including how this course fits into the program(s):**

BUS 491 is the capstone course for the proposed Professional Sales minor, providing students with practical experience working in a sales-support role. The course will give students a clearer understanding of their interest and aptitude for a career in professional selling.

*Note: Adding this course to a program will usually require a program change request.*

**2. Explain how the course learning outcomes align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):**

BUS 491 emphasizes work-integrated learning. Students will learn how to use their knowledge and skills proficiently (ILO 2) by applying their learning from prior courses, e.g., BUS 221 Professional Selling and BUS 322 Advanced Selling, in an professional work setting. Students will also learn how to pursue self-motivated and self-reflective learning (ILO 6), something they will be documenting and sharing throughout the 13 weeks of this credit/no-credit course.

**3. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs? N/A**

**4. Which program areas have been consulted about the course?**

Consultations have been carried out with the School of Business curriculum committee and student advisor, Marketing Area faculty, UFV Work Placement Committee members, UFV International, UFV India, and the Centre for Experiential and Career Education.

**5. If a new discipline designation is required, explain why: N/A**

**6. In what ways does this course contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).**

The course provides students with an experiential learning experience and includes weekly reflection journaling.

A learning outcome focusing on the First People's Principles of Learning has been incorporated into the course.

Prior to beginning the practicum, students will research the sponsor's organizational history.

Storytelling is emphasized. Students who have taken the course in prior years will be invited to share their practicum stories with current students in class 2. At the end of the course, students will share their own practicum stories with their peers through an oral presentation or short video. A selection (at least five) of UFV faculty/staff and business community members will also be invited to the presentations to provide intergenerational connections.

A dialogue has been started with the Stó:lō Business Association regarding its interest in promoting the availability of practicum students to member businesses.

**7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?**

Work placement supervisors will be required to sign an agreement that, among other things, will ask them to ensure that their workplace values the principles of EDI and ethical behaviour.

The course instructor, in selecting placements, will ensure that a diverse range of workplace supervisors are available for students to choose from among.

Students will be required to post reflective journal entries on six different topics during the practicum, one of which will be an assessment of the practicum workplace through an EDI lens. Another journal entry will provide an overview of the host's current sales training program and how it could benefit from the integration of First People's Principles of Learning.

**8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.):**

The course will be offered on a credit/no-credit basis to enhance self-motivated learning.

Prior to the placement, the instructor will meet individually with placement supervisors to ensure that their expectations are reasonable, and that the training and work to be carried out will have maximum learning value for students. The placement supervisor will receive a rubric to evaluate students' performance during the practicum, and the course instructor will be in regular contact with the supervisor during the placement. At the end of the placement, the instructor will meet with the supervisor to discuss the completed performance rubric.

A handbook will be prepared to guide instructors in the delivery of the course.

**9. Estimate of the typical costs for this course, including textbooks and other materials:**

There will be no costs for textbooks or materials; however, students will be required to provide their own transportation to and from the practicum workplace.



ORIGINAL COURSE IMPLEMENTATION DATE: September 2022  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): January 2028  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

**Note: The University reserves the right to amend course outlines as needed without notice.**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------|---|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|
| <b>Course Code and Number:</b> BUS 491                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                               |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Course Full Title:</b> Professional Sales Practicum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Course Short Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Faculty:</b> Faculty of Professional Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Department (or program if no department):</b> School of Business                                                                                                                                                                                                                                                                                                                                                                                                  |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Calendar Description:</b><br>Supervised workplace experience in professional selling and related activities, applying skills from pre-requisite courses. Students must be available to work for one day per week (8.5 hours) for ten weeks of the practicum placement.<br><br>Note: Students must sign a practicum agreement. Practicum placement is at the discretion of the department and is based on student readiness.                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | BUS 322 and permission of the instructor.                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | BUS 306 or BUS 422.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>                                                                                                                                                 | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Credit/No Credit</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">Practicum</td> <td style="width: 20%; text-align: center;">85</td> </tr> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">9</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>94</b></td> </tr> </table> | Practicum                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 85 | Lecture/seminar | 9 |  |  |  |  |  |  | <b>Total hours</b> | <b>94</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |
| Practicum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 85                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>94</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                       | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                             |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Date of meeting:</b> October 12, 2021                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Date of meeting:</b> November 12, 2021                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Date of meeting:</b> January 28, 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                 |   |  |  |  |  |  |  |                    |           |                                                                                               |



**Learning Outcomes** *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

- LO 1. Demonstrate professional and ethical behavior in the field placement host's workplace.
- LO 2. Apply selling knowledge and skills learned in prior courses.
- LO 3. Demonstrate the ability to work independently and collaboratively.
- LO 4. Relate concepts and theories learned in prior sales courses to the practicum.
- LO 5. Assess the relevance of the Canadian Professional Sales Association's code of ethics to the work of a sales manager.
- LO 6. Reflect on the practicum experience, including workplace performance and interest in a career as a sales practitioner.
- LO 7. Relate the First People's Principles of Learning to the practicum experience.

**Recommended Evaluation Methods and Weighting** *(Evaluation should align to learning outcomes.)*

|              |     |   |   |
|--------------|-----|---|---|
| Assignments: | 60% | % | % |
| Practicum:   | 40% | % | % |

**Details:**

For the assignment score, 10% is allocated to the pre-practicum preparation and 20% to the post-practicum reflection with fellow learners and community members. The remaining 30% involves weekly reflection journaling on specific sales-related topics, including observations and reflections on the placement host's salesforce structure and sales processes, customer service practices, sales training program and its alignment with First People's Principles of Learning, ethics and social responsibility initiatives, and EDI practices.

This course is graded on a Credit/No Credit basis. The instructor, in consultation with the workplace supervisor, assigns the grade when the required number of hours and all required assignments have been completed. Students must attend two in-class seminars where they will discuss practicum expectations and one seminar at the end of the course where they will reflect upon and share their experiences working in the field.

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Texts and Resource Materials** *(Include online resources and Indigenous knowledge sources. [Open Educational Resources](#) (OER) should be included whenever possible. If more space is required, use the [Supplemental Texts and Resource Materials form](#).)*

| Type | Author or description | Title and publication/access details | Year |
|------|-----------------------|--------------------------------------|------|
| 1.   |                       |                                      |      |
| 2.   |                       |                                      |      |
| 3.   |                       |                                      |      |
| 4.   |                       |                                      |      |
| 5.   |                       |                                      |      |

**Required Additional Supplies and Materials** *(Software, hardware, tools, specialized clothing, etc.)*

Depending on the workplace, professional or business casual dress may be required. Students may require personal transportation.

**Course Content and Topics**

**Module 1: Pre-Practicum Preparation**

- Completion of practicum agreements
- CPSA Code of Ethics review
- Overview of First People's Principles of Learning
- Workplace professionalism and expectations discussion
- Assignment of practicums
- Research memo describing practicum host's industry and organizational history (LO 1, 2)

**Module 2: Practicum**

- Online, weekly reflection journaling on specific sales-related topics (LO 4, 5, 7)
- Feedback and evaluation from practicum supervisor (LO 1, 2, 3)

**Module 3: Post-Practicum Reflection**

- Practicum summary (report or video) and reflection with fellow learners and community members (LO 4, 5, 6, 7)

# MEMO



To: Samantha Pattridge, Chair, UEC  
From: Mark Breedveld, Program Working Group Chair  
Cc: Tracy Ryder Glass, Vice-Provost, Dean, Faculty of Professional Studies (outgoing); Chris Schinckus, Dean, Faculty of Professional Studies (incoming); Claire Carolan, Associate Director, Program Development and Quality Assurance  
Date: January 18, 2021  
Re: Proposal for Professional Sales Minor

---

Please accept the following attachments as part of the submission to the UEC meeting on January 28, 2022:

- Full program proposal and appendices for a Professional Sales minor
- Calendar Copy
- BUS 491 new course memo and outline
- Tracking report

The attachments are submitted on behalf of the Program Working Group. The program proposal and the new course were approved at the Faculty of Professional Studies Curriculum Committee on October 22, 2021 and the Professional Studies Faculty Council on November 12, 2021. It was reviewed at UEC Screening on December 3, 2021 and sent to CWC on December 22, 2021.

**Note:** The program proposal and calendar copy are available in **S:\Groups\UEC\2022-01-28 Professional Sales minor.**

**Program Summary:**

The UFV School of Business is a leader in sales education at the university level in Canada, currently offering three courses to BBA students interested in pursuing careers in professional selling. Surprisingly, however, no academic credential exists to recognize UFV students' specialized learning. The proposed Professional Sales minor solves this problem. At the same time, the minor has been structured to make it more accessible to non-Business students, giving them the opportunity to also benefit from the many well-paying career opportunities available to university graduates with sales skills.

The Professional Sales minor requires 24 credits. Besides two lower-level, foundational business courses, the minor includes two sales-skills courses, a personal development course, a management course, an elective, and the School of Business's first practicum course. The Professional Sales minor

emphasizes work-integrated learning and provides students with an opportunity to earn an industry credential from the Canadian Professional Sales Association.

In a survey of 150 UFV students conducted by Institutional Research and Planning, 58% of respondents said they either “probably” or “definitely” would enroll in the Professional Sales minor if it were offered.

The Professional Sales minor has received the support of a variety of other stakeholders including employers, professional bodies and heads and faculty in other UFV schools and departments. This support is documented in the appendices of the proposal.

**Program Working Group:**

Mr. Mark Breedveld (Chair), Associate Professor, Marketing Area, School of Business;

Mr. David Dobson, Associate Professor, Marketing Area, School of Business;

Dr. Masud Khawaja, Associate Professor, Human Resources and Organizational Studies Area, School of Business;

Ms. Susan Brown, Program Advisor, School of Business; and

Dr. Carl Janzen, Director of the School of Computer Information Systems

**Concept Paper:**

No concept paper is required for this minor, as UFV holds exempt status for undergraduate programs where a closely related major exists.

# MEMO



To: Samantha Pattridge, Chair, UEC  
From: Samantha Pattridge, Chair, Program Working Group  
Cc: Claire Carolan, Associate Director, Program Development and Quality Assurance  
Date: December 8, 2021  
Re: Communications Major Program Proposal

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On behalf of the Communications Major Program Working Group, please accept the following attachments as part of this Stage 2 submission to UEC for the meeting December 17, 2021:

- Communications Major program proposal
- Communications calendar copy

This program proposal is submitted on behalf of the program working committee. The Stage 1 and executive summary for this program were approved by the Degree Quality Assessment Board on July 21, 2021 and do not require a Stage 2 review of program quality.

The CACC approved this proposal to proceed to UEC review on November 12, 2021. UEC Screening approved this proposal to proceed to CWC on December 3, 2021. Proposal was sent to CWC on December 8, 2021.

**Note:** The program proposal and calendar copy are available in **S:\Groups\UEC\2022-01-28 Communications major**.

**Program Summary:**

The goal of this 120-credit Communications major within the Bachelor of Arts is to provide a flexible program that will appeal to both working professionals and new post-secondary students as preparation for a communications-related career or further studies. The program focuses on applied skills underpinned by Communications theory. This program enhances the capacity of the BA at UFV by expanding options for students and meeting the local demand for graduates with these particular abilities to fill employment demand in a variety of industries and roles.

**Concept Paper:**

The concept paper for the Communications Major was approved in the 2020 Program Report and Plan at the June 18, 2020 meeting of the UFV Board of Governors.

**Memo for Course Changes**

To: Linda Pardy, College of Arts Curriculum Committee Chair  
From: Zina Lee, Director of the School of Criminology and Criminal Justice  
Date: October 20, 2021  
Subject: Discontinuation of CRIM 205, 435, and 481

## 1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

## 2. Rationale for change:

- a. Title, Calendar Description, Learning Outcomes, and Texts/Resource Materials: We are requesting to discontinue these courses as they have not been offered for several years.
- b. Prerequisites: N/A
- c. Antirequisite Courses: N/A

## 3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s): N/A

## 4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A

## 5. Which program areas have been consulted about the change(s)? N/A

## 6. What consideration has been given to indigenizing the curriculum? N/A

## 7. If this course is not eligible for PLAR, explain why: N/A

## 8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area: N/A

- a. Credit value

- b. Class size limit
  - c. Frequency of offering
  - d. Resources required (labs, equipment)
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? N/A
10. Estimate of the typical costs for this course, including textbooks and other materials: N/A

**Memo for Course Changes**

To: Amanda Grimson, UEC Committees Assistant; Sylvie Murray, Dean of Arts; Jennifer Browne, Curriculum and Student Learning Assistant (Arts)

From: (Department head or Chair of Program Working Group)

Date: October 21, 2021

**Subject: Proposal for revision of HIST 310**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: The course has not been offered in some years and is unlikely to be offered regularly in the future.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? No.

5. Which program areas have been consulted about the change(s)? The History Department

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:



**Memo for Course Changes**

To: Amanda Grimson, UEC Committees Assistant; Sylvie Murray, Dean of Arts; Jennifer Browne, Curriculum and Student Learning Assistant (Arts)

From: (Department head or Chair of Program Working Group)

Date: October 21, 2021

**Subject: Proposal for revision of HIST 374**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: The course has not been offered in some years and is unlikely to be offered regularly in the future.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? No.

5. Which program areas have been consulted about the change(s)? The History Department

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:

**Memo for Course Changes**

To: Amanda Grimson, UEC Committees Assistant; Sylvie Murray, Dean of Arts; Jennifer Browne, Curriculum and Student Learning Assistant (Arts)

From: (Department head or Chair of Program Working Group)

Date: October 21, 2021

**Subject: Proposal for revision of HIST 425**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: The course has not been offered in some years and is unlikely to be offered regularly in the future.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? No.

5. Which program areas have been consulted about the change(s)? The History Department

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:

**Memo for Course Changes**

To:

From: Chantelle Marlor, Dept Chair, Social, Cultural & Media Studies

Date: October 7, 2021

**Subject: Proposal for revision of: *Language and Culture* - ANTH/LING 209**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):
  - ☐ Six-year review
  - ☐ Number and/or course code
  - ☐ Credits and/or total hours
  - ☐ Title
  - ☐ Calendar description
  - ☐ Prerequisites and/or co-requisites
  - ☐ Frequency of course offering
  - ☐ Learning outcomes
  - ☐ Delivery methods and/or texts and resource materials
  - ☐ PLAR options, grading system, and/or evaluation methods
  - ☒ **Discontinuation of course**
  - ☐ Other – Please specify:
2. Rationale for change: **Historically low enrollments Last run Winter 2019, with 44% fill rate.**
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? **No.**
5. Which program areas have been consulted about the change(s)? **SCMS**
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:

**Memo for Course Changes**

From: Chantelle Marlor, Department Chair: Social, Cultural & Media Studies

Date: October 8, 2021

**Subject: Proposal for revision of: Socialization – SOC 215**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):
  - ☐ Six-year review
  - ☐ Number and/or course code
  - ☐ Credits and/or total hours
  - ☐ Title
  - ☐ Calendar description
  - ☐ Prerequisites and/or co-requisites
  - ☐ Frequency of course offering
  - ☐ Learning outcomes
  - ☐ Delivery methods and/or texts and resource materials
  - ☐ PLAR options, grading system, and/or evaluation methods
  - ☒ Discontinuation of course
  - ☐ Other – Please specify:
2. Rationale for change: **Course not offered since Winter 2019. Outdated theory.**
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? **No.**
5. Which program areas have been consulted about the change(s)? **SCMS**
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:

**Memo for Course Changes**

From: Chantelle Marlor, Department Chair: Social, Cultural & Media Studies

Date: August 25, 2021

**Subject: Proposal for revision of: Social Change and Contemporary Representation ANTH/MACS 407**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):
  - ☐ Six-year review
  - ☐ Number and/or course code
  - ☐ Credits and/or total hours
  - ☐ Title
  - ☐ Calendar description
  - ☐ Prerequisites and/or co-requisites
  - ☐ Frequency of course offering
  - ☐ Learning outcomes
  - ☐ Delivery methods and/or texts and resource materials
  - ☐ PLAR options, grading system, and/or evaluation methods
  - ☒ Discontinuation of course
  - ☐ Other – Please specify:
2. Rationale for change: **Course hasn't run since Fall 2013, with very low enrollment. Subsequent sections have been cancelled due to low enrollment.**
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#): **N/A**
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? **No.**
5. Which program areas have been consulted about the change(s)? **SCMS**
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). **N/A**
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? **N/A**
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc. **N/A**
9. Estimate of the typical costs for this course, including textbooks and other materials: **N/A**

**Memo for Course Changes**

From: Chantelle Marlor, Department Chair: Social, Cultural & Media Studies

Date: August 25, 2021

**Subject: Proposal for revision of: Special Topics: Sociology of Education - SOC 433**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):
  - ☐ Six-year review
  - ☐ Number and/or course code
  - ☐ Credits and/or total hours
  - ☐ Title
  - ☐ Calendar description
  - ☐ Prerequisites and/or co-requisites
  - ☐ Frequency of course offering
  - ☐ Learning outcomes
  - ☐ Delivery methods and/or texts and resource materials
  - ☐ PLAR options, grading system, and/or evaluation methods
  - ☒ Discontinuation of course
  - ☐ Other – Please specify:
2. Rationale for change: **Course never been offered.**
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#): N/A
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? **No.**
5. Which program areas have been consulted about the change(s)? **SCMS**
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). N/A
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? N/A
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc. N/A
9. Estimate of the typical costs for this course, including textbooks and other materials: N/A



**Memo for Course Changes**

From: Chantelle Marlor, Department Chair: Social, Cultural & Media Studies

Date: August 25, 2021

**Subject: Proposal for revision of: Selected Topics in the Sociology of Religion - SOC 440**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: **Course never been offered.**

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? **No.**
5. Which program areas have been consulted about the change(s)? **SCMS**
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:

**Memo for Course Changes**

From: Chantelle Marlor, Department Chair: Social, Cultural & Media Studies

Date: August 25, 2021

**Subject: Proposal for revision of: Special Topics in Development Studies – SOC/ANTH/LAS 463**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):
  - ☐ Six-year review
  - ☐ Number and/or course code
  - ☐ Credits and/or total hours
  - ☐ Title
  - ☐ Calendar description
  - ☐ Prerequisites and/or co-requisites
  - ☐ Frequency of course offering
  - ☐ Learning outcomes
  - ☐ Delivery methods and/or texts and resource materials
  - ☐ PLAR options, grading system, and/or evaluation methods
  - ☒ Discontinuation of course
  - ☐ Other – Please specify:
2. Rationale for change: **Courses offered, but never ran due to low enrollments.**
3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? **No.**
5. Which program areas have been consulted about the change(s)? **SCMS**
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.
9. Estimate of the typical costs for this course, including textbooks and other materials:

**Memo for Course Changes**

To: Chair, Undergraduate Education Committee

From: Curtis Magnuson, Interim Director, School of Social Work and Human Services

Date: November 1, 2021

**Subject: Proposal to remove: HSER 500** Counselling Skills for Addiction Work; **HSER 501** Group Facilitation Skills for Addictions; **HSER 502** Family Work in Addictions; **HSER 510** The Nature of Substance Abuse; **HSER 511** Pharmacology and Psychobiology of Addictions; **HSER 512** Community Treatment: Assessment and Referral; **HSER 527** Integrative and Self-Care Seminars; **HSER 528** Integrative and Self-Care Seminars; and **HSER 530** Substance Abuse Practicum.

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

This proposal is to remove nine Human Services 500-level courses from the University Calendar. In April 2021, University Senate discontinued the Substance Abuse Counselling Certificate program, which, among other courses, comprised the nine 500-level courses referred to in this memo. At the time the School requested and received approval for the discontinuance of the certificate program, a corresponding request for discontinuation of the courses that comprised most of the certificate program was not brought forward.

Data received from Institutional Research on September 16, 2021, confirms that none of these courses has been offered since the Spring semester of 2010. As mentioned earlier, the program that required these courses was discontinued in April 2021.

The identified courses are not required by any existing program offered by the University and the School of Social Work and Human Services has no intention of offering them again.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s): Not applicable
4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? Not applicable
5. Which program areas have been consulted about the change(s)? Not applicable
6. What consideration has been given to indigenizing the curriculum? Not applicable
7. If this course is not eligible for PLAR, explain why: Not applicable
8. If any of the following items on the official course outline have changed, explain how the change will affect the budget for your area or any other area:
  - a. Credit value Not applicable
  - b. Class size limit Not applicable
  - c. Frequency of offering Not applicable
  - d. Resources required (labs, equipment) Not applicable
9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? Not applicable
10. Estimate of the typical costs for this course, including textbooks and other materials: Not applicable

Attachments: February 5, 2021, Program Discontinuance Memo and Rationale

September 16, 2021, email from Aidan Gibbons confirming last time courses were offered



## **UEC ADMISSIONS SUBCOMMITTEE**

### **TERMS OF REFERENCE**

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The UEC Admissions Subcommittee (UECAS) is a subcommittee of the Undergraduate Education Committee.

#### **Purpose**

The purpose of the subcommittee is to:

- Advise UEC on admission and readmission policy and practices.
- During the creation of new programs or the revision of existing programs, review proposals with a view to ensuring effective and efficient admission requirements and practices.
- Consider "special admission requests" (individual exceptions to admission requirements) to programs below the Graduate level, as required under the Admission policy (80).
- UEC may refer admissions matters or questions to UECAS for comment, research, or recommendations.

### **PROCEDURES**

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#### **Process**

- UECAS will review new or changed admission requirements for all programs and credentials below the Graduate level prior to submission to UEC.
- UECAS may be consulted on new or changed admission requirements to Graduate-level programs and credentials.
- The Admissions office is responsible for developing a process to review special admission requests in preparation for presentation to the subcommittee.
- Decisions may be made in a formal meeting, virtual or in-person. Where a meeting is not possible or practical, an email vote is permissible. For email votes, members will have a minimum of five business days to respond. If quorum is not available, or the UECAS is unable to reach a decision, the matter will be referred to UEC. Once a quorum is reached, decisions will be decided by a simple majority of those voting.
- Quorum is four (4) voting members.

#### **Reporting**

- The UEC Committee Assistant will provide administrative support and retain a record of all decisions made.
- The Chair will make regular reports to UEC.

### **COMPOSITION**

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#### **Membership**

- Associate Registrar, Admissions and Recruitment (Ex-officio)
- University Registrar or designate
- Two UEC members from the faculty complement
- One from International Education
- One Associate Dean

- Two additional members, including at least one Academic or Program Advisor. These may be from within, or outside, UEC.
- The Manager of Admissions will be a resource (non-voting) to the subcommittee.

**Chair**

- The Associate Registrar Admissions and Recruitment will be the Executive Secretary.
- The UECAS will determine a Chair each September. The Executive Secretary will serve as the Vice-Chair.



## **UEC POLICY SUBCOMMITTEE**

The UEC Policy Subcommittee is a subcommittee of the Undergraduate Education Committee.

### **PURPOSE**

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The purpose of the subcommittee is to suggest new policies or revisions to policies that fall under Items 2 and 4 of the UEC Terms of Reference:

- 2. Advise Senate on policies, procedures, and criteria for the admission, evaluation, withdrawal, and promotion of undergraduate students.
- 4. Advise Senate on policies and procedures for review and approval of new and existing courses, programs, or curricular changes.

### **TERMS OF REFERENCE**

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1. Review Senate Governance Committee requests for policy reviews.
2. Consult with relevant stakeholders where necessary to draft policy revisions.
3. Bring policy drafts to UEC for discussion, approval, or recommendation to Senate.
4. Identify policies in need of revision and propose policy reviews when appropriate.
5. Initiate policy reviews when directed by UEC to do so.

### **COMPOSITION**

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#### **Membership**

- One UEC Chair
- Registrar (or designate)
- University Secretary (or designate)
- Two UEC Faculty members\*
- One UEC Advisor\*
- One IR representative
- One Dean
- One UEC at large member\*

\* Two-year term, renewable.

As needed, the committee will consult specific areas (International Education, Graduate Studies Committee, Continuing Education, specific disciplinary or Faculty areas not otherwise included in the committee, etc.)



## Undergraduate Education Committee Terms of Reference

### RESPONSIBILITIES

1. Advise Senate on curricular matters related to the undergraduate educational programs of the university.
2. Advise Senate on policies, procedures, and criteria for the admission, evaluation, withdrawal, and promotion of undergraduate students.
3. Advise Senate on the criteria for awarding certificates, diplomas, and degrees to undergraduate students.
4. Advise Senate on policies and procedures for review and approval of new and existing courses, programs, or curricular changes.
5. Review the recommendations of faculty councils, approve the recommendations where mandated by Senate to do so, and inform Senate.
6. Advise the Academic Planning & Priorities Committee on proposals for new programs and program revisions that may occasion a change to the alignment of programs with institutional priorities.
7. Make recommendations to Senate on the resolution of disputes between departments and other academic divisions related to undergraduate course and program development and delivery.
8. Establish such subcommittees as needed to fulfill the committee's responsibilities.
9. Other duties as assigned by Senate.

### COMPOSITION

#### Voting Members

- Chair, a faculty member of the committee, nominated by the committee, and approved by Senate
- Vice-Chair, University Registrar (or designate)
- Nine faculty members, approved by Senate, at least two of whom shall be members of Senate\*
- Two Deans or associate deans approved by Senate
- University Librarian or designated Librarian<sup>†</sup> (ex officio)
- One Academic Advisor approved by Senate
- One staff member approved by Senate
- Two undergraduate students approved by Senate
- Associate Vice-President, Teaching and Learning (or designate) (ex officio)

#### Ex Officio Non-Voting Members

- Provost & Vice-President, Academic (or designate)
- Associate Vice-President, Research, Engagement, and Graduate Studies (or designate)
- Executive Director, UFV International (or designate)
- Senior Advisor on Indigenous Affairs
- Manager, Enrolment Planning

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\* Normally, there shall be at least one member from each of the Faculties, selected to reflect the diversity of disciplines at the university.

<sup>†</sup> Normally, the designate shall be appointed for a minimum of a one-year term to ensure continuity.



- Associate Vice-President, Institutional Research and Integrated Planning (or designate)
- Associate Director, Program Development and Quality Assurance
- Director, Advising Centre (or designate)

**Administrative Support**

- UEC Assistant/Calendar Editor, Office of the Registrar



## **MEMO**

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**To:** Samantha Pattridge, Chair, Undergraduate Education Committee (UEC)

**From:** Secretariat office

**Date:** January 4, 2022

**Re:** Vacant Positions on UEC as of July 31, 2022

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Terms of office will be ending on July 31, 2022, for the following members on UEC:

- Sven van de Wetering, Faculty of Social Sciences - faculty senator
- Shelley Stefan, Faculty of Humanities – faculty senator
- Adrianna Bakos, Faculty of Humanities – faculty
- Carl Janzen, Faculty of Professional Studies – faculty
- Ravneet Sohal – student senator

The Secretariat office will make a call to senators in early February to fill positions on UEC and other standing committees, followed by call to non-senators, from February 21 to March 14, 2022. An Expression of Interest form will be made available at that time.