

# UNDERGRADUATE EDUCATION COMMITTEE (UEC) MEETING October 2, 2020 - 10:00 AM

# **AGENDA**

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- 1. UEC BUSINESS
  - 1.1. Election of UEC Chair for 2020/21
- 2. APPROVAL OF THE AGENDA

2.1.

- 3. APPROVAL OF UEC MINUTES
- 4 8 **3.1.** UEC draft minutes: April 24, 2020
  - 4. COURSE OUTLINES
- 9 27 **4.1. Communications**

New course: CMNS 126, Communication Visually in Organizations

Review with changes including prerequisites: CMNS 175

Review with changes: CMNS 180

Review with changes including title, prerequisites, and total hours: CMNS

301/JRNL 301

MOTION: To approve the CMNS course outlines as presented.

28 - 4.2. Creative Arts

Review with changes including prerequisites: THEA 306/MUSC 306

Review with changes including pre/corequisites: VA 404

MOTION: To approve the THEA 306/MUSC 306 course outline as presented.

MOTION: To approve the VA 404 course outline as presented.

38 - 4.3. English for Academic Preparation

New course: EAP 079, Integrated Academic Studies

New course: EAP 086, Academic Interactive Communications: University

Bridge Level

5.3. APPC report

Page MOTION: To approve the new EAP 079 and 086 course outlines as presented. 45 -4.4. Global Development Studies 51 New course: GDS 299, Special Topics in Development Studies I New course: GDS 399, Special Topics in Development Studies II MOTION: To approve the new GDS 299 and 399 course outlines as presented. 52 -4.5. Library and Information Technology 53 Discontinuation: LIBT 161, 265 MOTION: To discontinue LIBT 161 and 265 as presented. 54 -4.6. Mathematics and Statistics 62 Changes including equivalent courses: STAT 104 Review with changes including equivalent courses: STAT 106 MOTION: To approve the STAT course outlines as presented. 63 -4.7. Media Arts 70 New course: MEDA 395, Special Topics in Media Arts New course: MEDA 490, Directed Studies in Media Arts MOTION: To approve the new MEDA 395 and 490 course outlines as presented. 71 -4.8. Physics 102 Review with changes: ENGR 113 Review with changes including prerequisites and pre/corequisites: PHYS 111 Review with changes including total hours: PHYS 221, 225 Review with changes including prerequisites and total hours: PHYS 382 Review with changes including total hours: PHYS 408 Review with changes including total hours and course number (formerly PHYS 383): PHYS 482 MOTION: To approved the ENGR and PHYS course outlines as presented. 5. OTHER BUSINESS/DISCUSSION ITEMS 103 5.1. Quality Assurance Process Audit institution report draft review **Membership on UEC Subcommittees** 104 -107 Admissions Subcommittee Transfer Credit Subcommittee Policy Subcommittee Screening Subcommittee

Pag	e

- 5.4. Senate report
- 5.5. Committee goals for 2020/21

# 6. INFORMATION ITEMS

**6.1. Minor course changes** (outlines will be available at <a href="https://www.ufv.ca/calendar/courseoutlines">www.ufv.ca/calendar/courseoutlines</a>)

MATH 092 093

MATH 092, 093 PHYS 352

# 6.2. Program suspension

Suspension: Hospitality Event Planning certificate

- 108 6.3. UEC Terms of Reference
   109
   6.4. UEC meeting dates for 2020/21
- 111 **6.5. UEC membership for 2020/21** 112
  - 6.6. Other UEC documents and resources
    - Program and Course Approval Procedures
    - Guiding Principles for Quality Curriculum
    - UEC Resources
    - Procedures and Guidelines for Senate Standing Committees

# 7. ADJOURNMENT



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

April 24, 2020 10:00 AM - A225 Abbotsford Campus

# **DRAFT MINUTES**

Adrianna Bakos, Courtney Boisvert, Sue Brigden, Vlad Dvoracek, Peter Geller, Claire Hay,

PRESENT: Jonathan Hughes, Bobby Jaswal, Amber Johnston, David Johnston, Gilmour Jope, Bruce

Kirkley, Rashad Mammadov, David McGuire, Elaine Newman, Samantha Pattridge, Shelley

Stefan, Sven Van de Wetering, and Martin Warkentin

ABSENT: Donna Alary, Shirley Hardman, Neeraj Kumar, Alisha Mutneja, Linda Pardy, Teresa Arroliga-

Piper, and Kirsten Robertson

GUESTS: Ian Affleck, Jill Bain, Anna Cook, Marlene Murray, Christine Slavik, Tony Stea, Melissa Walter,

and Dawna Williams
RECORDER: Amanda Grimson

#### 1. ONLINE MEETING PROTOCOL

# 1.1. Voting

#### MOTION:

That UEC approve the following voting process for electronic meetings:

- 1. Call for all opposed to the motion.
- 2. Call for all abstentions to the motion.
- Remaining UEC members are deemed to be voting in favour of the motion.

**CARRIED** 

#### 2. APPROVAL OF THE AGENDA

#### 3. APPROVAL OF UEC MINUTES

3.1. UEC draft minutes: February 28, 2020

#### MOTION:

To approve the draft minutes as presented. CARRIED

#### 4. COURSES AND PROGRAMS

4.1. Child, Youth, and Family Services: Course outlines

Changes including total hours: CYC 310, 410

#### MOTION:

To approve the CYC course outlines as presented. CARRIED

# 4.2. Child, Youth, and Family Studies: Program changes

Page 2 of 5

Change to admission quotas: Bachelor of Arts (Child and Youth Care)

#### MOTION:

To recommend the changes to the Bachelor of Arts (Child and Youth Care) as presented, effective September 2020. CARRIED

## 4.3. Business: Program changes

<u>Changes to entrance and program requirements</u>: Business minor <u>Change to program requirements</u>: Marketing major

#### MOTION:

To recommend the changes to the Business minor as presented, effective September 2020.

**CARRIED** 

#### MOTION:

To approve the changes to the Marketing major as presented, effective September 2020.

CARRIED

#### 4.4. Business: Course outlines

Review with changes: BUS 433/ECON 433

#### **MOTION:**

To approve the BUS 433/ECON 433 course outline as presented. CARRIED

#### **MOTION:**

To approve the changes to the Business minor as presented, effective September 2020.

#### **MOTION:**

To approve the changes to the Marketing major as presented, effective September 2020.

#### 4.5. Creative Arts: Program changes

Change to entrance requirements: Bachelor of Fine Arts

Program changes: Visual Arts diploma

#### MOTION:

To recommend the changes to the Bachelor of Fine Arts, effective September 2020.

**CARRIED** 

#### MOTION:

To approve the changes to the Visual Arts diploma as presented, effective September 2020.

**CARRIED** 

#### 4.6. Creative Arts: Course outlines

Review with changes including title and prerequisites: AH 200

APPROVAL OF UEC MINUTES

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Review with changes including prerequisites: AH 205 (formerly AH 205/VA 205),

270, 320

New course: AH 219 New course: AH 235

Review with changes including title: AH 250

Review with changes including title, prerequisites, and course number: AH 323

(formerly AH 314) New course: AH 324

Review with changes including title and prerequisites: AH 340 (formerly AH

340/FD 340)

Discontinuation: AH 341/FD 341

Review with changes including pre/corequisites: VA 404

#### MOTION:

To approve the AH course outlines as amended:

- Wherever relevant the learning outcome "source and use images ethically" will be changed "source and contextualize images ethically", and will be added to any courses that do not already include this outcome.
- Wherever relevant, "supervised online activities" hours will be changed to either "lectures/seminars" or "tutorials/workshops".

#### **CARRIED**

#### MOTION:

To approve the VA 404 course outlines as presented, pending agreement between SOCA and UEC Screening regarding the addition of at least one more learning outcome.

CARRIED

## **MOTION:**

To approve the new AH 219, 235, and 324 course outlines as presented. CARRIED

# 4.7. Health Sciences: Program changes

Calendar updates: Bachelor of Science in Nursing

# MOTION:

To approve the updates to the Bachelor of Science in Nursing as presented, effective September 2020.

**CARRIED** 

## 4.8. Science: Program changes

Change to Physics declaration requirements: Bachelor of Science

#### MOTION:

To approve the changes to the Bachelor of Science declaration requirements as presented, effective September 2020. CARRIED

### 4.9. Biology: Course outlines

Review with changes: BIO 111, 112, 201, 202, 210, 220

Changes including title: BIO 442

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BIO 442 will be lettered, and students will be able to take multiple versions of the course for credit as long as the topic is different. A note will need to be added through the approval process to the Biology major, minor, and any other applicable programs if the department wishes to restrict the number of times that BIO 442 can be applied.

#### MOTION:

To approve the BIO course outlines as presented. CARRIED

#### 4.10. English: Course outlines

Review with changes including title and change to special topics course: ENGL 170

Review with changes including title: ENGL 318, 319, 333, 370

Review with changes: ENGL 356

Changes including title: ENGL 373/JRNL 373

#### MOTION:

To approve the ENGL course outlines as presented. CARRIED

# 4.11. Mathematics and Statistics: Course outlines

<u>Change to equivalent courses</u>: MATH 111, 123, 141 Review with changes including total hours: STAT 350

# **MOTION:**

To approve the MATH 111, 123, and 141 course outlines as presented. CARRIED

#### MOTION:

To approve the STAT 350 course outline as presented. CARRIED

#### 4.12. Philosophy: Course outlines

New course: PHIL 312 309, Feminist Philosophy

#### MOTION:

To approve the new PHIL course outline as presented. CARRIED

# 5. OTHER BUSINESS/DISCUSSION ITEMS

#### 5.1. Policy Subcommittee report

This item was postponed to a future meeting.

#### 5.2. Senate report

#### 6. INFORMATION ITEMS

#### 6.1. English Language Proficiency Requirements

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Addition to requirements: Duolingo

**6.2.** Minor course changes (outlines will be available at <a href="https://www.ufv.ca/calendar/courseoutlines">www.ufv.ca/calendar/courseoutlines</a>)
BUS 434/ECON 434
EDUC 200
VA 402

7. ADJOURNMENT

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#### **Memo for New Course**

To: Linda Pardy, CACC Chair

From: Samantha Pattridge, CMNS Department Head

Date: March 12, 2020

Subject: Proposal for New Course CMNS-126 Visual Communication

#### 1. Rationale for new course:

This course has been designed as part of an initiative of the Communications major and potential future offerings in Journalism. It is intended to be one of several new courses that will eventually help the department address the shift in the fields of professional communication and journalism towards visual content creation. It is designed as an introduction to the theory and practice of visual communication, especially as related to professional communication and journalism.

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

The development of this course is part of the program revision process. Visual communication from both theoretical and practical perspectives is one of the focus areas for the work-in-progress major in Communications and the existing minor. It will be a required 100-level foundational course for the proposed major and an option for the minor. Students from Visual Arts, Media Arts, Graphic Design, Integrated Studies would likely be interested in taking this as an introductory level skills course that complements graphic design, photography and film courses.

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

This course will help students learn about visual storytelling techniques using different visual formats and approaches. It will increase understanding of visual literacy through decoding visual content and applying principles of visual communication to their projects. The program learning outcomes of the proposed BA major in Communications include the following that are directly met by this course in visual communications:

- Demonstrate proficiency in creating professional communication materials that draw on a wide spectrum of media to achieve specific purposes and meet the needs of particular audiences.
- Employ industry-standard document design techniques to various workplace contexts.
- Apply rhetorical principles to the creation of oral, print, visual, and digital communication.
- Apply principles of visual communication to produce targeted visual content using a variety of technological tools.
- Adapt and respond strategically to the rapidly changing and dynamic communication situations of industry, business and community sectors.

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

While this course does not apply to any other programs at the moment, we can see it being an appealing option for many programs as either an elective or required course. If other programs adopt the course as required, we have the capacity to reserve seats and increase the number of offerings yearly.

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

There have been consultations with faculty from Visual Arts and Graphic Design.

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

N/A

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

Every effort will be made to choose course materials, design assignment topics, and offer models and examples that reflect global diversity, including first nations diversity. Students can choose the content of their assignments and will be encouraged to choose Indigenous topics for at least one assignment.

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
    - No effect.
  - b. Class size limit
    - No effect.
  - c. Frequency of offering
    - No effect.
  - d. Resources required (labs, equipment)
    - One-time equipment purchase expense is required. Please see attached Equipment Purchase List.

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Additional, annual equipment maintenance and administrative expenses may be required.  Italy reservation is required for all class sessions.  10. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?  N/A  11. Estimate of the typical costs for this course, including textbooks and other materials:  In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b) equipment maintenance/renewal fee – \$60.00.		
required.  • Lab reservation is required for all class sessions.  10. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?  N/A  11. Estimate of the typical costs for this course, including textbooks and other materials:  In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)		
<ul> <li>10. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?</li> <li>N/A</li> <li>11. Estimate of the typical costs for this course, including textbooks and other materials: In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)</li> </ul>		
timetable.) How are the trips funded?  N/A  11. Estimate of the typical costs for this course, including textbooks and other materials:  In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)		Lab reservation is required for all class sessions.
11. Estimate of the typical costs for this course, including textbooks and other materials:  In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)	10	
In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)		N/A
In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)	11	. Estimate of the typical costs for this course, including textbooks and other materials:
		In addition to tuition, costs to students would be: a) textbooks – typically \$60.00-\$100.00; b)

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: CMNS 126 Number of Credits: 3 Course credit policy (105)						
Course Full Title: Communicating Visually in	Organization	s				
Course Short Title:						
(Transcripts only display 30 characters. Depart	tments may r	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
Faculty: Faculty of Humanities	D	epartment (o	r prograi	<b>n if no department):</b> Co	mmunications	
Calendar Description:						
Introduces the fundamentals of visual commun and principles of effective composition applied theoretical guidelines in hands-on projects invo	to the contex	t of organizat	ional com	munication. Students wil	I practice using these	
Prerequisites (or NONE):	None.					
Corequisites (if applicable, or NONE):						
Pre/corequisites (if applicable, or NONE):						
Antirequisite Courses (Cannot be taken for a	dditional cred	dit.)	Specia	Topics (Double-click or	n boxes to select.)	
Former course code/number:			This co	urse is offered with differ	ent topics:	
Cross-listed with:			No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study			
Equivalent course(s):			If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)			
(If offered in the previous five years, antirequis included in the calendar description as a note to						
for the antirequisite course(s) cannot take this			⊠ No	Yes, repeat(s)	Yes, no limit	
, , ,		,	Transfe	er Credit		
Typical Structure of Instructional Hours			Transfe	r credit already exists: (S	See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		15	⊠ No ☐ Yes			
Tutorials/workshops		15	Submit outline for (re)articulation:			
Supervised laboratory hours		15	☐ No ☐ Yes (If yes, fill in transfer credit form.)			
Experiential (field experience, practicum, inte	rnship, etc.)		Grading System			
Supervised online activities			□ Lette	er Grades 🔲 Credit/No	Credit	
Other contact hours:			Maximu	um enrolment (for infor	mation only): 25	
	Total hours	45	Expect	ed Frequency of Cours	e Offerings:	
Labs to be scheduled independent of lecture h	ours: 🛛 No	☐ Yes	•	(Every semes	ter, Fall only, annually, etc.)	
Department / Program Head or Director: Sa	mantha Pattr	idge		Date approved:	April 2020	
Faculty Council approval				Date approved:	May 19, 2020	
Dean/Associate VP: Jacqueline Nolte				Date approved:	May 19, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	
Undergraduate Education Committee (UEC)				Date of meeting:	October 2, 2020	

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#### **CMNS 126**

#### 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:

- Apply visual communication theories in the use and presentation of images and information.
- Create visual content aimed to achieve industry-standard efficiency and productivity.
- Use principles of ethical visual communication in a workplace.
- Demonstrate creative and independent thinking while analyzing and creating visual content.
- Evaluate their own work and the work of others in a professional communications context.
- · Apply appropriate visual tools and technologies for professional communications.
- · Present visual-verbal stories online using photographs, audio and video.
- Acquire knowledge, ideas and values related to the history, ethics, principles and power of visual communications.
- Articulate the value of studying and practicing visual communication in their careers and personal lives.

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

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

- Lectures
- Lab training sessions
- Group assignments
- In-class exercises
- Out-of-class assignments and projects
- Online assignments

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

Тур	pical Text(s) and Resource M	laterials (If more space is required, download Supplement	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.	Barnes S.B.	An Introduction to Visual Communication: From Cave Art to Second Life	$\boxtimes$	Peter Lang Inc.	2017				
2.									
3.									

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

#### **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	30%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Project:	40%	Practicum:	%	In-class activities::	5%
Quizzes/tests:	15%	Lab work:	10%	Shop work:	%	Total:	100%

## Details (if necessary):

#### **Typical Course Content and Topics**

- Week 1: Psychology of human vision. Understanding the visual elements. Orientation to DSLR cameras.
- Week 2: Sensation = Perception. Principles of visual communication. Using camera controls to interpret visual messages.
- Week 3: Role of photographic images in professional communication. Capturing action. Digital editing in Photoshop.
- Week 4: Camera versus the eye. Avoiding common communication problems. Lighting in camera operations: Direction | Quality | Exposure.
- Week 5: Picture stories. Picture story elements. Three traditions of photographic storytelling.
- Week 6: Visual ethics. Avoiding stereotypes in visual communication messages. Writing story leads, headlines, captions. Imagetext interaction.
- Week 7: Graphic design and professional communications. Typography. Working with text and images.
- Week 8: Appropriateness in design. Legibility and readability. Packaging.
- Week 9: Using grids in publication design. Four Big Ideas: ARCS. Creating and maintaining spreads.
- Week 10: Color theories. Informational and interactive graphics. The future of graphic design. Online publishing platforms.
- Week 11: Intro to video format in professional environment. Understanding the basic shots. Video composition. Orientation to DSLR video and tripod.
- Week 12: Additional shots and basic camera movements. Planning your video shoot. Sequences and montage. Orientation to non-linear editing.
- Week 13: Interview filming techniques. A roll and B roll. Storyboard. Creative editing techniques.
- Week 14: Sound design. Timing and pacing in video. Cinema and broadcast history and ethics. Future of Visual Communications.

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	Memo for Course Changes
To:	-
Fro	m: Samantha Pattridge, Department Head, Communications
Dat	te: Feb. 25, 2020
Sub	oject: Proposal for revision of CMNS 175: Writing for the Internet
1.	Summary of changes (select all that apply):
	□ 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
	<ul><li>□ Discontinuation of course</li><li>□ Other − Please specify:</li></ul>
	Other - Flease specify.
2.	Rationale for change:
	As part of the six-year course review the course learning outcomes have been modified to reflect the changes in the field of professional writing for online communication and social media platforms.
	Writing techniques addressing the expectations of audiences specific to different types of online
	platforms are reflected in the revised learning outcomes.
3.	If there are substantial changes to the learning outcomes, explain how they align with the learning
	outcomes of the program(s):
	Changes to course learning outcomes and additional outcomes align with the following CMNS Minor Learning Outcomes:
	Demonstrate competency in creating professional messages across a wide spectrum of
	media that fulfill specific communication purposes and meet the needs of the audience.
1	• Apply rhetorical principles to the design and delivery of oral, print, and digital messages.  Is this course required by any program beyond the discipline? If so, how will this change affect that
→.	program or programs?
	CMNS 175 is an option for several programs. These changes should not affect these programs excep
	in a positive way, since we will start offering the course again.
5.	Which program areas have been consulted about the change(s)?
	Graphic Design
6	What consideration has been given to indigenizing the curriculum?

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The course design will consider writing practices and assignments/project that will help student connect with the local indigenous communities and ways of knowing.

- 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?

N/A

10. Estimate of the typical costs for this course, including textbooks and other materials: \$100

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ORIGINAL COURSE IMPLEMENTATION DATE: May 2007

REVISED COURSE IMPLEMENTATION DATE: January 2021

COURSE TO BE REVIEWED (six years after UEC approval): January 2026

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.

Course Code and Number: CMNS 175	N	Number of Credits: 3 Course credit policy (105)				
Course Full Title: Writing for the Internet Course Short Title: (Transcripts only display 30 characters. Depart	artments may r	recommend a	short title	if one is needed. If left bla	ank, one will be assigned.)	
Faculty: Faculty of Humanities	D	epartment (o	r prograi	m if no department): CM	INS	
Calendar Description:	'					
An introduction to the theory and practice of vidigital communication and explore approaches						
Note: Students will be required to participate	in global socia	l media enviro	nments.			
Prerequisites (or NONE):	score or cou proficiency s	rse grade liste tandards in th	ed under ti e UFV ac	English 12, CPT score of ne Degree/diploma-level ademic calendar at al/EnglishProficiency.htm		
Corequisites (if applicable, or NONE):						
Pre/corequisites (if applicable, or NONE):						
Antirequisite Courses (Cannot be taken for Former course code/number: Cross-listed with: Dual-listed with: Equivalent course(s): (If offered in the previous five years, antirequiousluded in the calendar description as a note for the antirequisite course(s) cannot take this	will be with credit	This con No Independent of the rependent	ndent Study d as an Independent Studated for further credit: (If	· ·		
Typical Structure of Instructional Hours			Transfer Credit  Transfer credit already exists: (See <u>bctransferguide.ca</u> .)  □ No ⊠ Yes			
Lecture/seminar hours		30				
Tutorials/workshops			Submit outline for (re)articulation:			
Supervised laboratory hours		15	☐ No ☐ Yes (If yes, fill in transfer credit form.)			
Experiential (field experience, practicum, int	ternship, etc.)		Gradin	g System		
Supervised online activities			□ Lette	er Grades	Credit	
Other contact hours:			Maximu	ım enrolment (for infori	nation only): 25	
	Total hours	45		ed Frequency of Course		
			F		- " · " · \	
Labs to be scheduled independent of lecture	hours: 🛛 No	☐ Yes	Every s	emester (Every semester	r, Fall only, annually, etc.)	
Labs to be scheduled independent of lecture  Department / Program Head or Director: S			Every s	Date approved:	January 24, 2020	
·			Every s	` ,	. ,	
Department / Program Head or Director: S			Every s	Date approved:	January 24, 2020	
Department / Program Head or Director: S Faculty Council approval			Every s	Date approved:	January 24, 2020 April 28, 2020	

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#### **CMNS 175**

#### 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:

- Explain the communication context and process, particularly as it pertains to electronic communication.
- Analyze the online audience with its distinct characteristics.
- · Draft and revise an effective organizational story.
- Critique examples of digital communication formats, including text, motion, sound, non-linear and interactive media in short, medium and long formats.
- Apply the principles of text-audio/visuals interaction in copy writing.
- Apply Search Engine Optimization (SEO) for Internet writing.
- Discuss copyright and ethical issues relevant to digital communication.
- · Demonstrate techniques of document design.
- Prepare presentations for the digital environment.

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

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

- Lectures
- Demonstrations
- Applied projects
- In-class exercises
- In-class discussion

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

Тур	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.	Fenton, N., & Lee, K. K.	Nicely Said: Writing for the Web with Style and Purpose		New Riders.	2014				
2.	McCulloch, G.	Because Internet: Understanding the New Rules of Language.		Penguin	2019				
3.	Veloso, M.	Web Copy That Sells: The Revolutionary Formula for Creating Killer Copy That Grabs Their Attention and Compels Them to Buy		AMACOM	2013				
4.									
5.									

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

# Typical Evaluation Methods and Weighting

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

# Details (if necessary):

### **Typical Course Content and Topics**

- 1. Introduction to communications theory
- 2. How technology influences writing and publishing
- 3. Determining purpose and audience for digital communications
- 4. Evolving digital formats: short format (Twitter, Instagram, Pinterest, etc.), medium format (Facebook, LinkedIn, etc.) and long format (Blogpost, website, digital publication, periodicals)
- 5. Writing and revising material for electronic distribution
- 6. Layout and page design for electronic documents
- 7. Incorporating graphics and visual information
- 8. Ethics and communications technology: intellectual property and copyright
- 9. Research and documenting research in online environments
- 10. Using technology to supplement and enhance public presentations

COURSE OUTLINES Page 17 of 112

	Memo for Course Changes
To:	Linda Pardy, CACC Chair
Froi	n: Samantha Pattridge, CMNS Department Head
Dat	e: March 17, 2020
Sub	ject: Proposal for revision of CMNS 180
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's outcomes needed to be updated to better reflect the course's content and focus.
	If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s): The changes are not major, except that we have added wording about Indigenous theories and practices for intercultural communication. This course is a required course in our program and fits with the key outcome around intercultural communication: "Model effective and professional communication skills for interpersonal, team, organizational, and culturally diverse contexts."
	Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? This course meets the BA intercultural engagement requirement, and the change will not affect the program.
5.	Which program areas have been consulted about the change(s)? None
	What consideration has been given to indigenizing the curriculum? The course naturally includes a substantial amount of discussion of Indigenous theories and practices, and we have made this focus more evident in the learning outcomes. We have also added <i>The elements of Indigenous style</i> as a textbook.
7.	If this course is not eligible for PLAR, explain why: n/a

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8.	If any o	of the following items on the official course outline have changed, explain how the change will
	affect t	he budget for your area or any other area: no change to any of these
	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 for textbook

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2007
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: CMNS 180 Number of C				edits: 3 Course credit policy (105)		
Course Full Title: Introduction to Intercultura	I Communicat	ion				
Course Short Title: Intro to Intercultural CMI						
(Transcripts only display 30 characters. Depart	artments may r	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
Faculty: Faculty of Humanities	D	epartment (o	r prograi	n if no department): Co	ommunications	
Calendar Description:						
Students explore theory and practice relating differences among their own and other world importance of self-reflexivity, flexibility, and many their own are self-reflexivity.	views and iden	itities; practice	verbal a	nd non-verbal intercultura		
Prerequisites (or NONE):	None.					
Corequisites (if applicable, or NONE):						
Pre/corequisites (if applicable, or NONE):						
Antirequisite Courses (Cannot be taken for	additional cred	dit.)	Specia	Topics (Double-click of	n boxes to select.)	
Former course code/number:			This co	urse is offered with differ	ent topics:	
Cross-listed with:			No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study			
Equivalent course(s):			If offered as an Independent Study course, this course may			
(If offered in the previous five years, antirequi			be repeated for further credit: (If yes, topic will be recorded.)			
included in the calendar description as a note for the antirequisite course(s) cannot take this			⊠ No	Yes, no limit		
To the annequation obtained by carmot take this	3 000/30 10/10/	ruioi oroaia,	Transfe	er Credit		
Typical Structure of Instructional Hours			Transfer credit already exists: (See <u>bctransferguide.ca</u> .)  ☐ No ☑ Yes			
Lecture/seminar hours		45				
Tutorials/workshops			Submit	Submit outline for (re)articulation:		
Supervised laboratory hours			⊠ No	☐ Yes (If yes, fill in trar	sfer credit form.)	
Experiential (field experience, practicum, int	ernship, etc.)		Grading System  ⊠ Letter Grades □ Credit/No Credit			
Supervised online activities						
Other contact hours:			Maximi	ım enrolment (for infor	mation only): 25	
	Total hours	45		ed Frequency of Cours	• •	
Labs to be scheduled independent of lecture	hours: 🛛 No	Yes		y (Every semester, Fall o	•	
Department / Program Head or Director: Samantha Pattridge			I.	Date approved:	April 3, 2020	
Faculty Council approval:				Date approved:	April 28, 2020	
Dean/Associate VP: Jacqueline Nolte				Date approved:	April 28, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	

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#### **CMNS 180**

#### 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:

- Identify intercultural communication theories and practices (including non-Eurocentric ones such as from Indigenous scholars), especially in relation to living, learning, and working in Stó:lō territory.
- Apply appropriate verbal and nonverbal skills in intercultural settings.
- · Use intercultural collaboration skills.
- Discuss the intrinsic relations between definitions of culture and the communication process.
- Identify how context, history, family, media, and other institutions influence culture and communication.
- Discuss how demography and globalization shape cultural identity and intercultural relations.
- Discern how power, stereotypes, and prejudice are manifest in intercultural communication.
- Demonstrate self-reflectivity, flexibility, and mindfulness during intercultural interactions.

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

oximes Yes oximes 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, student presentations, group assignments, in-class discussion, in-class analysis of case studies, guest lectures.

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

Ту	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.	Liu, SI, Volcic, A. & Gallois, C.	Introducing Intercultural communication: Global cultures and contexts.	$\boxtimes$	Sage					
2.	Younging, G.	The elements of Indigenous style		Brush Education	2018				
3.									
4.									
5.									

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

## **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	70%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Project:	15%	Practicum:	%	Other:	
Quizzes/tests:	15%	Lab work:	%	Shop work:	%	Total:	100%

#### Details (if necessary):

20% Weekly concept journals

20% In-class assignments

30% Reflective essays

15% Project

15% Quizzes/tests

# Typical Course Content and Topics

- Communication fundamentals
- Intercultural communication forms and models
- Culture and perception: beliefs, values, and attitudes; Intercultural communication theories
- Cultural perspectives: Diverse worldview, family, religion, and history
- Verbal communication and culture
- Nonverbal communication and culture
- Intercultural issues: racism, prejudice, oppression, colonialization
- Truth and reconciliation
- Intercultural communication at work and in educational settings
- Dealing with conflict
- Intercultural travels

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	Memo for Course Changes
To:	UEC
Fro	m: Samantha Pattridge
Dat	re: May 11, 2020
Suk	eject: Proposal for revision of CMNS 301
1.	Summary of changes (select all that apply):
	<ul><li>Six-year review</li><li>□ Number and/or course code</li></ul>
	☐ Credits and/or total hours
	□ Title     □ Title
	☐ Calendar description
	<ul><li>☑ Prerequisites and/or co-requisites</li><li>☐ Frequency of course offering</li></ul>
	<ul> <li>☑ Learning outcomes</li> </ul>
	□ Delivery methods and/or texts and resource materials
	☐ PLAR options, grading system, and/or evaluation methods
	<ul><li>□ Discontinuation of course</li><li>□ Other − Please specify:</li></ul>
2	Rationale for change:
۷.	In the process of a six-year revision, the faculty identified a series of necessary changes including
	course title, calendar description, learning outcomes and prerequisites. Such significant changes are
	dictated by the changes in the field of journalism practice triggered by the application of emerging
	information technologies in recent years. Proposed changes reflect a switch in focus in electronic media from primarily broadcasting to web-based multi-format journalism.
3.	If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):
	The course learning outcomes are designed to contribute to the Communication Department's
	program vision and strategy. Modified CLOs reflect the PLO's desire to provide students with the cutting edge, industry-standard practices of producing and distributing information through the
	modern journalistic channels of communication.
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 currently offered as an option in the Essentials of Journalism Associate Certificate. The
	changes to the course will not affect the program.

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

  No other program areas were consulted.
- 6. What consideration has been given to indigenizing the curriculum?
  Where possible the course content highlights the importance of Indigenous cultures and community engagement in class and in the experiential learning assignments.
- 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 No change
  - b. Class size limit The class size changed from 20 to 25 to reflect the change to multimedia formats which are more readily accessible than the previous technology used, which limited our class size to 20.
  - c. Frequency of offering No change
  - d. Resources required (labs, equipment) The course will require part of its time to be scheduled in a computer lab that contains the appropriate software.
- 9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?

N/A

 ${\bf 10.} \ \ {\bf Estimate} \ \ {\bf of} \ \ {\bf the} \ \ {\bf typical} \ \ {\bf costs} \ \ {\bf for} \ \ {\bf this} \ \ {\bf course}, \ {\bf including} \ \ {\bf textbooks} \ \ {\bf and} \ \ {\bf other} \ \ {\bf materials};$ 

\$100 for textbook plus possible \$60 technology fee to contribute to purchase and maintenance of camera equipment.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2009
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: CMN	IS 301	Number of Credits: 3 Course credit policy (105)				
Course Full Title: Multimedia Jou	rnalism					
Course Short Title:	otoro Donortmonto mov	rocommond o	abort titla	if and is needed. If left hi	onk one will be essigned )	
(Transcripts only display 30 chara	cters. Departments may	recommend a	Short title	ii one is needed. Ii leit bi	ank, one will be assigned.)	
Faculty: Faculty of Humanities	ι	Department (c	r prograi	n if no department): Co	mmunications	
Calendar Description:						
Students will apply foundational sk photography, videography and sou examples of professionally crafted	und. The course emphas					
This course is offered as CMNS 30	01 and JRNL 301. Stude	nts may take o	only one o	f these for credit.		
Prerequisites (or NONE):	175, or ENGL 105. Not 300/JRNL 300 and one	te: As of Septe e of CMNS 126	mber 202 6, VA 119,	1, prerequisites will chan VA 160, VA 180, FILM 2	•	
	Note: Students who ha can request instructor		S 235 or I	ENGL 215, or have expe	rience in journalistic writing,	
Corequisites (if applicable):						
Pre/corequisites (if applicable):						
Antirequisite Courses (Cannot b	e taken for additional cre	edit.)	Special Topics (Double-click on boxes to select.)			
Former course code/number:			This course is offered with different topics:			
Cross-listed with: JRNL 301			No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study If offered as an Independent Study course, this course may			
Equivalent course(s):						
(If offered in the previous five year included in the calendar descriptio for the antirequisite course(s) can	n as a note that students	with credit	be repeated for further credit: (If yes, topic will be reco			
rei ine animequione eeuree(e) earn	Tot take time deares for ta	raior ordana)	Transfe	er Credit		
Typical Structure of Instructiona	al Hours		Transfe	r credit already exists: (S	ee <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		25	⊠ No			
Tutorials/workshops						
Supervised laboratory hours		20	⊠ No	☐ Yes (If yes, fill in trans	sfer credit form.)	
Experiential (field experience, pra	acticum, internship, etc.)		Gradin	g System		
Supervised online activities			⊠ Lette	er Grades 🔲 Credit/No	Credit	
Other contact hours:			Maximi	um enrolment (for infori	mation only): 25	
	Total hours	45		ed Frequency of Course	• •	
Labs to be scheduled independent	t of lecture hours: 🛛 No	Yes	-	y (Every semester, Fall o	_	
Department / Program Head or I	Director: Samantha Patt	ridge	1	Date approved:	May 2020	
Faculty Council approval				Date approved:	June 2, 2020	
raculty Council approval	Dean/Associate VP: Jaqueline Nolte					
	olte			Date approved:	June 2, 2020	
				Date approved:  Date of posting:	June 2, 2020 June 26, 2020	

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#### **CMNS 301**

#### 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:

- Research, write and edit news reports and features in a digital environment.
- Demonstrate familiarity with relevant professional, ethical and legislative standards.
- Evaluate the quality of composition in regard to both photographic and video content.
- Address the issues related to producing news for digital platforms.
- Operate as an independent multi-format reporter.
- Collaborate as a member of a multi-format reporting team.
- Create photo, radio/audio and video news items.
- Demonstrate technical proficiency in at least one of the digital reporting formats.
- Practice the common approaches to digital data presentation.
- Align and coordinate multi-format content.
- · Critically evaluate the potential of emerging communication technologies for journalistic purposes.

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

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

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

Тур	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.	Wenger, D.H.	Advancing the story: Quality journalism in a digital world (4th ed.)		CQ Press	2019				
2.	Baldwin K.	Multimedia Technologies: Designs, Tools and Applications		Willford Press	2019				
3.									
4.									
5.					_				

Required Additional Supplies and Materials (Software, hardware, tools, specialized clothing, etc.) Access to Adobe Creative Cloud

# **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	25%	Field experience:	%	Portfolio:	20%
Midterm exam:	%	Project:	45%	Practicum:	%	Participation::	10%
Quizzes/tests:	%	Lab work:	%	Shop work:	%	Total:	100%

# Details (if necessary):

Using digital tools:	10%
Graphics/data visualization:	15%
Photojournalism:	15%
Radio project:	15%
TV project:	15%
Multimedia portfolio:	20%
Class participation	10%

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## CMNS 301 University of the Fraser Valley Official Undergraduate Course Outline

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#### **Typical Course Content and Topics**

#### Week 1 Introduction to the course

Reviewing journalism foundations (elements of a news story, newsgathering)

Using digital tools to serve quality journalism (including crowdsourcing and data mining) What changes and what stays the same?: journalism in a multimedia environment

#### Week 2 The multimedia mindset

The power of multimedia

Collecting information using multimedia tools

Using social media to tell news stories and effectively target audiences

Virtual reality as a journalist's tool

Critical analysis of selected examples from multimedia coverage

#### Week 3-4 Graphics/Data visualization

Why use graphics? Types of graphics Simple is better Data for graphics

#### Week 5-7 Photojournalism

Images as a crucial resource for journalists DSLR cameras: strategies and strengths Smartphone cameras: strategies and strengths

Using photographs to tell stories (combining images, building slideshows and adding text)

DSLR and smartphone photography exercises

#### Week 8-9 Audio: using sound to tell stories

Radio stories Choosing sound Writing to sound Editing audio

Special story types: long-form audio and natural sound stories

#### Week 10-11 Video: mobilizing moving images as a journalist

TV stories Choosing video

Writing to video: "show don't tell"

Editing video .

# Week 12-13 Freelancing as a multimedia journalist

Branding yourself Job hunting Networking

Building a multimedia portfolio

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2009
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

Course outline form version: 10/27/2017

# OFFICIAL UNDERGRADUATE CROSS-LISTED OUTLINE FORM

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

Course Code and Number: JRNL 301	Number of Credits: 3 Course credit policy (105)					
Course Full Title: Multimedia Journalism	•					
Course Short Title:						
(Transcripts only display 30 characters. Depa	artments ma	y recommend a	a short ti	tle if one is needed. If le	ft blank, one will be assigned.)	
Faculty: Faculty of Humanities		Department (	or prog	ram if no department):	: Communications	
Official Course Outline:						
This is a cross-listed course. Please refer to	CMNS 301 f	or the official co	ourse ou	tline.		
Calendar Description:						
Students will apply foundational skills of rese photography, videography and sound. The context examples of professionally crafted journalistic	ourse empha	asizes adapting				
This course is offered as CMNS 301 and JRN	NL 301. Stud	dents may take	only one	e of these for credit.		
155, CMNS 175, or ENGL				r 45 university-level credits including one of CMNS 125, CMNS GL 105. Note: As of September 2021, prerequisites will change 300/JRNL 300 and one of CMNS 126, VA 119, VA 160, VA 180,		
				ken MACS 235 or ENGL 215, or have experience in lest instructor approval.		
Corequisites (if applicable):						
Pre/corequisites (if applicable):						
Antirequisite Courses (Cannot be taken for	additional c	redit.)	Trans	fer Credit		
Former course code/number:			Transf	er credit already exists:	(See bctransferguide.ca.)	
Cross-listed with: CMNS 301			⊠ No	☐ Yes		
Dual-listed with:			Submit outline for (re)articulation:			
Equivalent course(s):			⊠ No	☑ No ☐ Yes (If yes, fill in transfer credit form.)		
(If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this credit.)	e that studen	nts with credit				
Department / Program Head or Director: S	Samantha Pa	attridge		Date approved:	May 2020	
Faculty Council approval				Date approved:	June 2, 2020	
Dean/Associate VP: Jaqueline Nolte				Date approved:	June 2, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	
Undergraduate Education Committee (UE	C) approval			Date of meeting:	October 2, 2020	

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	Memo for Course Changes
Το	: CACC, UEC
	om: Heather Davis-Fisch, Director SoCA
	te: January 6, 2019
	bject: Proposal for revision of THEA 306/MUSC 306
1.	Summary of changes (select all that apply):
	Six-year review
	<ul><li>☐ Number and/or course code</li><li>☐ Credits and/or total hours</li></ul>
	☐ Title
	☐ Calendar description
	□ Prerequisites and/or co-requisites     □ Prerequisites and Prerequisites     □ Prerequisites and Prerequisites    □
	☐ 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: Updated to be consistent with other 300-level theatre/performance studies
	courses, in terms of instructional hours, learning outcomes, assignments.
3.	If there are substantial changes to the learning outcomes, explain how they align with the learning
	outcomes of the program(s): Revised course learning outcomes are more strongly aligned with
	program learning outcomes and are consistent with outcomes in other 300-level courses. Outcomes include situating performances in historical context (course LOs: Evaluate musicals in terms of their
	ability to confirm and confront social norms and to represent gender, race, and class; Situate
	musicals in historical, theoretical, aesthetic, and cultural contexts; PLO: Critically analyze
	contemporary and historical performances, from a range of world cultures;) performance
	historiography (course LO: Describe the relationship between book, music, lyrics, and performance
	conventions in the contemporary musical; PLO: Explain how knowledge of performances of the past
	is preserved and transmitted historically); and research methods and communication of research
	findings (course LO's: Write a research paper, following a process that includes identifying a research question, locating and evaluating source material, and synthesizing multiple sources
	effectively; Apply research methods as relevant to musical theatre history (e.g. textual analysis,
	musical analysis, close reading, archival analysis); PLO: Develop methods for generating,
	investigating, and responding to performative research questions; Communicate effectively in
	written, verbal, and non-verbal languages in a variety of contexts and settings, using current
	technologies appropriately).

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- 4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? NA
- 5. Which program areas have been consulted about the change(s)? Music committee has been consulted.
- 6. What consideration has been given to indigenizing the curriculum? Indigenous content can easily be incorporated into this course, through the inclusion of examples of musicals by Indigenous authors and Indigenous authors' writing on musical theatre. For instance, the CTR included in sample reading list includes an article by Corey Payette describing the creative process involved in his work *Children of God*. Instructors can also include field trips to musicals by Indigenous authors; typically there are several choices in most fall-winter theatre seasons in Vancouver. The "typical" course content includes two examples of how Indigenous content can be included: by examining the Indigenous roots of Rogers and Hammerstein's musical Oklahoma, which was based on a stage play by Lynn Riggs (Cherokee); and in students reading the book for and attending a musical by an Indigenous author (Les Filles du Roi).
- 7. If this course is not eligible for PLAR, explain why: NA
- 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: NA
  - 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? If fieldtrips are required, they will be announced in the timetable and will be funded by students.
  - 10. Estimate of the typical costs for this course, including textbooks and other materials: \$150 for texts and any performance tickets.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2011
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: THEA 306	N	Number of Credits: 4 Course credit policy (105)				
Course Full Title: History of Musical Theatre	)					
Course Short Title:						
(Transcripts only display 30 characters. Departments)	artments may r	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
Faculty: Faculty of Humanities	D	epartment (c	r prograi	<b>n if no department)։</b> Th	neatre	
Calendar Description:						
Examines the development of musical theatre that have transformed the genre, an explorati theatre.						
Note: Attendance at musical theatre performa	ances may be	required.				
Note: This course is offered as THEA 306 an	d MUSC 306.	Students may	take only	one of these for credit.		
Prerequisites (or NONE):	One of the forcedits.	ollowing: THE	A 203, TH	EA 204, THEA 205, THE	EA 206, or 45 university-level	
Corequisites (if applicable, or NONE):	None					
Pre/corequisites (if applicable, or NONE):	None					
Antirequisite Courses (Cannot be taken for	additional cre	dit.)	Special Topics (Double-click on boxes to select.)			
Former course code/number:			This course is offered with different topics:			
Cross-listed with: MUSC 306			No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study			
Equivalent course(s):			If offered as an Independent Study course, this course may			
(If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this	e that students	udents with credit		be repeated for further credit: (If yes, topic will be recorded No Yes, repeat(s) Yes, no limit		
			Transfe	er Credit		
Typical Structure of Instructional Hours				,	See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		35	No    ☐ Yes      Submit outline for (re)articulation:			
Tutorials/workshops		25				
Supervised laboratory hours			☐ No ☐ Yes (If yes, fill in transfer credit form.)			
Experiential (field experience, practicum, int	ternship, etc.)		Gradin			
Supervised online activities			□ Lette	er Grades 🔲 Credit/No	o Credit	
Other contact hours:			Maximu	um enrolment (for infor	mation only): 30	
	Total hours	60		ed Frequency of Cours	• •	
Labs to be scheduled independent of lecture	hours: 🛛 No	☐ Yes		ther year	o onormigo.	
Department / Program Head or Director: H	leather Davis-F	Fisch	I	Date approved:	April 2020	
Faculty Council approval				Date approved:	April 28, 2020	
Dean/Associate VP: Jaqueline Nolte				Date approved:	April 28, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	
Undergraduate Education Committee (UEG	C) approval			Date of meeting:	October 2, 2020	

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#### **THEA 306**

#### 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:

- · Identify the major periods, authors, works, and composers in the development of musical theatre.
- Describe the relationship between book, music, lyrics, and performance conventions in the contemporary musical.
- Evaluate musicals in terms of their ability to confirm and confront social norms and to represent gender, race, and class.
- Demonstrate an understanding of critical approaches to analyzing a musical.
- Situate musicals in historical, theoretical, aesthetic, and cultural contexts.
- Demonstrate self-reflexivity and intellectual curiosity in relation to course material.
- Employ praxis-based methods to answer questions, solve problems, and explore the performance conventions of musical theatre.
- Write a research paper, following a process that includes identifying a research question, locating and evaluating source material, and synthesizing multiple sources effectively.
- Apply research methods as relevant to musical theatre history (e.g. textual analysis, musical analysis, close reading, archival analysis).
- Communicate arguments orally and in writing, demonstrating fluency with scholarly voice and conventions.

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Lectures, seminars, videos, recordings, attending performances, guest lecturer.

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. Everett, W. A.; Laird, P. The Cambridge Companion to the Musical Cambridge 2008 Natural Heritage Broadway North: The Dream of a Canadian Musical 2. Atkey, M. 2006 Theatre **Books** UTP 3. Renyk, G. (ed.) Canadian Theatre Review: The Musicals Issue (171) 2017 Payette C. and J McIsaac $\Box$ 2019 Les Filles du Roi Scirocco

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

Tickets to no more than two professional productions

#### Typical Evaluation Methods and Weighting

Final exam:	%	Assignments:	55%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Project:	35%	Practicum:	%	Participation:	10%
Quizzes/tests:	%	Lab work:	%	Shop work:	%	Total:	100%

**Details (if necessary):** Assignments may include: reading responses, performance analysis, presentations, scene projects. Project is a research project culminating in a research paper.

#### **Typical Course Content and Topics**

- Week 1 Introduction to Musical Theatre, defining the genre, and the creation of a Broadway musical
- Week 2 British Comic Opera The Beggars Opera to The Mikado; methods for analyzing music and musical theatre
- Week 3 The Evolving American Musical Theatre; how to generate research questions
- Week 4 Images of African Americans, Showboat and Porgy and Bess
- Week 5 The Great Depression, The Cradle Will Rock and the Screen Musical; developing a bibliography
- Week 6 The Musical Play Oklahoma , Lynn Riggs, and Rodgers and Hammerstein; representations of Indigeneity in Oklahoma and Green Grow the Lilacs
- Week 7 The Golden Age from the 1940s to the 1960s; synthesizing sources
- Week 8 Directors and Dance; outlining complex arguments
- Week 9 Bernstein and Sondheim; communicating research to others
- Week 10 The Rock Musical Hair to Rent including Canadians on Broadway; editing and revising strategies
- Week 11 The Canadian scene from Spring Thaw to the Drowsy Chaperone
- Week 12 Lloyd Webber and the Megamusical
- Week 13 Musical Theatre today, new voices, new directions. Indigenous and intercultural musicals in Canada. Les Filles Du Roi fieldtrip.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2011
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

Course outline form version: 10/27/2017

# OFFICIAL UNDERGRADUATE CROSS-LISTED OUTLINE FORM

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

Course Code and Number: MUSC 306		Number of Credits: 4 Course credit policy (105)				
Course Full Title: History of Musical Theatre Course Short Title: (Transcripts only display 30 characters. Depart		mend a short	title if one is needed. If le	eft blank, one will be assigned.)		
Faculty: Faculty of Humanities	Depart	Department (or program if no department): Theatre				
Official Course Outline:	· ·					
This is a cross-listed course. Please refer to	THEA 306 for the of	ficial course o	utline.			
Calendar Description:						
Examines the development of musical theatre that have transformed the genre, an explorat theatre.						
Note: Attendance at musical theatre performa	ances may be requir	ed.				
Note: This course is offered as THEA 306 an	d MUSC 306. Stude	ents may take	only one of these for cred	dit.		
Prerequisites (or NONE):	One of the following: THEA 203, THEA 204, THEA 205, THEA 206, or 45 university-level credits.					
Corequisites (if applicable, or NONE):	None					
Pre/corequisites (if applicable, or NONE):	None					
Antirequisite Courses (Cannot be taken for	additional credit.)	Tran	Transfer Credit			
Former course code/number:		Tran	Transfer credit already exists: (See bctransferguide.ca.)			
Cross-listed with: <b>THEA 306</b>			⊠ No ☐ Yes			
Dual-listed with:			Submit outline for (re)articulation:			
Equivalent course(s):			☐ No ☐ Yes (If yes, fill in transfer credit form.)			
(If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this credit.)	e that students with o					
Department / Program Head or Director: Heather Davis-Fisch			Date approved:	April 2020		
Faculty Council approval			Date approved:	April 28, 2020		
Dean/Associate VP: Jaqueline Nolte			Date approved:	April 28, 2020		
Campus-Wide Consultation (CWC)			Date of posting:	June 26, 2020		
Undergraduate Education Committee (UEC) approval			Date of meeting:	October 2, 2020		

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From: Heather DavisFisch Sent: May-19-20 7:55 AM

To: Amanda Grimson < Amanda. Grimson@ufv.ca>; Linda Pardy < Linda. Pardy@ufv.ca>; Arts Committees

<a>ArtsComAssist@ufv.ca>; Samantha Pattridge <Samantha.Pattridge@ufv.ca></a>

Subject: VA 404 course outline

Hi all.

SOCA's curriculum committee met yesterday and realized that the course outline that went forward at UEC was not the correct version. I can't seem to easily find the CACC agenda where it would have gone, but the version in the UEC package was not the right one. I have attached the version that SOCA intended to go forward. This version includes the outcome regarding oral presentation that addresses the concern Shelley raised at the meeting - Shelley has reviewed this and this meets her concerns. Thanks,

Heather

Heather Davis-Fisch Associate Professor, Theatre and English Director, School of Creative Arts University of the Fraser Valley

Views and Reviews editor, Canadian Theatre Review http://www.playwrightscanada.com/index.php/canadian-performance-histories-and-historiographies.html http://www.playwrightscanada.com/index.php/past-lives-performing-canada-s-histories.html

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	Memo for Course Changes
To	Samantha Pattridge, CACC
Frc	om: Heather Davis-Fisch – Director, SOCA
Da	te: May 31, 2019
Sul	bject: Proposal for revision of VA 404
1.	Summary of changes (select all that apply):
	☐ Number and/or course code
	☐ Credits and/or total hours
	☐ Title
	☐ Calendar description
	□ Prerequisites and/or co-requisites     □ Prerequisites and Pre-  **The Prevention of Prevention and Preventio
	☐ Frequency of course offering
	Learning outcomes
	☐ Delivery methods and/or texts and resource materials
	<ul><li>□ PLAR options, grading system, and/or evaluation methods</li><li>□ Discontinuation of course</li></ul>
	☐ Other – Please specify:
	Other Trease specify.
2.	Rationale for change: The updated changes reflect a more accurate description of what the course
	content and goals are for students. VA 403 is being changed from a co-requisite to a pre- or co
	requisite, to allow students to either take 403 earlier or at the same time. This adds flexibility if students choose to take 403 before instead of at the same time.
2	If there are substantial changes to the learning outcomes, explain how they align with the learning
J.	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)? VAPC
6.	What consideration has been given to indigenizing the curriculum? The VA department has several
	initiatives at work that aim to indigenize the academy, including the usage of indigenous content
	in its curricula and programs.
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 wi
	affect the budget for your area or any other area: N/A
	a. Credit value

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- 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? If fieldtrips are required, students cover costs.
- 10. Estimate of the typical costs for this course, including textbooks and other materials: 100+

# **CWC** comment and response:

 Learning outcome #6: are collaborative techniques and theories being taught and assessed in this course? If not, this should be revised to "Plan and execute an exhibition of final projects."

We discussed this at SoCA curriculum committee - the point of the outcome is to learn collaboration skills in service of exhibition, not just to mount the exhibition. Collaborative techniques and best practices are taught in the course and students are coached in collaborative processes.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2006
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: VA 404		Number of Credits: 3 Course credit policy (105)					
Course Full Title: Senior Studio II							
Course Short Title:							
(Transcripts only display 30 characters. Depa	artments may r	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)		
Faculty: Faculty of Humanities		Department (or program if no department): Visual Arts					
Calendar Description:							
A continuation of the self-directed studio pract component and complete/realize their studio prepare a graduating exhibition for the univers	projects to pres	ent to Visual	Arts facult				
Prerequisites (or NONE):	VA 402.						
Corequisites (if applicable, or NONE):							
Pre/corequisites (if applicable, or NONE):	VA 403.						
Antirequisite Courses (Cannot be taken for	additional cred	dit.)	Special Topics (Double-click on boxes to select.)				
Former course code/number:			This course is offered with different topics:				
Cross-listed with:			No ☐ Yes (If yes, topic will be recorded when offered.)				
Dual-listed with:			Independent Study				
Equivalent course(s):				If offered as an Independent Study course, this course may			
included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)			be repeated for further credit: (If yes, topic will be recorded.)  ☑ No ☐ Yes, repeat(s) ☐ Yes, no limit				
			Transfer Credit				
Typical Structure of Instructional Hours					See <u>bctransferguide.ca</u> .)		
Lecture/seminar hours		20	No ☐ Yes				
Tutorials/workshops			Submit outline for (re)articulation:  ☐ No ☐ Yes (If yes, fill in transfer credit form.)				
Supervised laboratory hours		40					
Experiential (field experience, practicum, int	ernship, etc.)		Grading System  ☑ Letter Grades ☐ Credit/No Credit				
Supervised online activities							
Other contact hours:			Maximi	ım enrolment (for infor	mation only): 20		
Total hours 60			Maximum enrolment (for information only): 20  Expected Frequency of Course Offerings:				
Labs to be scheduled independent of lecture	hours: No	Yes		y (Every semester, Fall o	<u> </u>		
Department / Program Head or Director: Heather Davis-Fisch				Date approved:	September 2019		
Faculty Council approval				Date approved:	October 11, 2019		
Dean/Associate VP: Jacqueline Nolte				Date approved:	October 11, 2019		
Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2020		
Undergraduate Education Committee (UEC) approval			Date of meeting:	October 2, 2020			

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#### **VA 404**

## 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:

- Work independently to develop advanced capstone projects from conception to completion.
- Conduct independent research to support creative practice.
- Prepare and develop artworks for graduating exhibition.
- Connect contemporary art practice and theory with individual projects.
- Receive, analyze, and integrate feedback from live critiques.
- Present and defend work in oral presentations to faculty and guest critic.
- Collaborate with peers to plan and execute an exhibition of final projects.

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Guest lectures, presentations, field trips, studio projects, peer and faculty critiques.

#### 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.									
2.									
3.									
4.									
5.									
1									

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

## **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	%	Exhibition responsibilities: 20%		Works in Progress:	20%
Midterm exam:	%	Studio Projects:	50%	Practicum:	%	Collaborative work:	10%
Quizzes/tests:	%	Lab work:	%	Shop work:	%	Total:	100%

## Details (if necessary):

## **Typical Course Content and Topics**

- 1. Introduction to course content and production of year-end graduating exhibition.
- Grad proposal due. Individual consultations related to projects.
- 3. Work in progress #1. Discussion of exhibition spaces.
- 4. Exhibition update. Individual consultations.
- 5. Grad panel meeting.
- 6. Field trip.
- 7. Work in progress #2. Oral presentations.
- 8. First draft artist statement due. Work period and consultations related to statements.
- 9. Exhibition updates. Work period and individual consultations related to projects.
- 10. Work in progress #3.
- 11. Exhibition updates. Work period and individual consultations. Oral presentations.
- 12. Final artist statements. Exhibition updates. Work period. Oral presentations.
- 13. Work in progress #4. Oral presentations.

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#### **Memo for New Course**

To: UEC

From: Gilmour Jope, English Language Studies Department Head

Date: June 3, 2020

#### Subject: Proposal for new course EAP 079: Integrated Academic Studies

#### 1. Rationale for new course:

English for academic preparation (EAP) courses typically develop core language skills in the discrete areas of academic reading, writing, and interactive communications and at various proficiency levels in preparation for undergraduate-level study. This multi-skill course integrates multiple language skills at a specific proficiency level while developing academic skills and competencies needed for success in a Canadian university context.

## 2. How this new course fits into program:

Language skills in core courses at the Advanced II/University Foundation level of the ELS Certificate program (EAP 070 University Foundation Reading, EAP 074 University Foundation Writing, and 076 University Foundation Interactive Communications) are integrated with a focus on developing academic study skills, problem solving, critical thinking, presentation, and classroom interaction skills.

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

The outcomes of this course align very well with the outcomes of the ELS Certificate Program, which emphasize language development across skill areas and proficiency levels in preparation for undergraduate-level study.

- 4. Will this course be required by any program beyond the discipline? No
- 5. Which program areas have been consulted about the course? None
- 6. If a new discipline designation is required, explain why: N/A
- 7. What consideration has been given to indigenizing the curriculum: Appropriate indigenous texts and materials could be used to support the course learning outcomes.
- 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: No

b. Class size limit: No

c. Frequency of offering: No

d. Resources required (labs, equipment): No

- 10. Are field trips required for this course? No
- 11. <u>Estimate of the typical costs for this course, including textbooks and other materials</u>: Estimated cost for a course pack and/or printing costs: \$20.00

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: EAP 079	Number of Credits: 3					
Course Full Title: Integrated Academic Stud	ies					
Course Short Title:	donation D			if		
Faculty: Faculty of Access and Continuing E	ducation D	epartment (o	r prograr	n if no department): Er	nglish Language Studies	
Calendar Description: Integration of English language reading, writing and classroom interaction typical in Canadian		ıral communic	ation skill	s for problem solving, cr	itical thinking, presentations,	
Prerequisites (or NONE):				S Academic score of 5.9 S assessment.	5 or higher with a minimum	
Corequisites (if applicable, or NONE):	None					
Pre/corequisites (if applicable, or NONE):	None					
Antirequisite Courses (Cannot be taken for	additional cred	dit.)	Special	Topics (Double-click o	n boxes to select.)	
Former course code/number:			This course is offered with different topics:			
Cross-listed with:			No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  ☑ No ☐ Yes, repeat(s) ☐ Yes, no limit			
Equivalent course(s):  (If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this	that students	with credit				
			Transfe	er Credit		
Typical Structure of Instructional Hours			Transfer credit already exists: (See <u>bctransferguide.ca</u> .)			
Lecture/seminar hours		20	⊠ No	_		
Tutorials/workshops		25		outline for (re)articulation		
Supervised laboratory hours			⊠ No	☐ Yes (If yes, fill in trar	nster credit form.)	
Experiential (field experience, practicum, inf	ternship, etc.)		Grading	g System		
Supervised online activities			Lette	er Grades 🛛 Credit/No	Credit	
Other contact hours:			Maximu	ım enrolment (for info	mation only): 20	
	Total hours	45		ed Frequency of Cours	• ,	
Labs to be scheduled independent of lecture	hours: 🛛 No	☐ Yes	2 times	• •	o chomige.	
Department / Program Head or Director: G	ilmour Jope			Date approved:	May 29, 2020	
Faculty Council approval				Date approved:	May 29, 2020	
Dean/Associate VP: Sue Brigden				Date approved:	May 29, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	September 9, 2020	
Undergraduate Education Committee (UE	C) approval			Date of meeting:	October 2, 2020	

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#### **EAP 079**

## 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:

- Critically analyze readings typically used in a variety of first-year university courses.
- Communicate successfully in pairs and small groups to complete collaborative tasks that require active listening and negotiation of meaning.
- Work collaboratively to research, develop, and present academic presentations on topics typical of first-year university courses.
- Paraphrase academic articles.
- Summarize academic articles.
- Integrate secondary sources into short academic essays using appropriate organizational structure and formatting conventions.
- Use advanced grammar and syntax structures and a range of vocabulary, word forms, and phrases with accuracy and appropriate academic register in written communication.
- Use advanced grammar and syntax structures and a range of vocabulary, word forms, and phrases with accuracy and appropriate academic register in oral communication.

Prior Learning	Assessment and	Recognition	(PLAR)
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**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Lectures, presentations by both the instructor and the students, and some online instruction.

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

#### Typical Text(s) and Resource Materials:

Course pack and online resources will be used. Course pack may include selected resources from the following list.

	Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1.	Beglar, D. & Murray, N.	Contemporary Topics 3	$\boxtimes$	Pearson	
2.	Langan, J.	Ten Steps to Improving College Reading Skills	$\boxtimes$	Townsend	
3.	Langan, J.	Clear Thinking and Writing	$\boxtimes$	Townsend	
4.	American Psychological Association	Official APA Style Guide	$\boxtimes$	American Psychological Association	

## **Required Additional Supplies and Materials:**

## **Typical Evaluation Methods and Weighting**

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

## Details (if necessary):

## **Typical Course Content and Topics**

- Module 1: Academic expectations at Canadian universities
- Module 2: Academic integrity
- Module 3: Effective participation in small group discussions
- Module 4: Academic presentations
- Module 5: Summarizing and responding to a reading
- Module 6: Paraphrasing academic articles
- Module 7: Writing a well-organized essay
- Module 8: Incorporating secondary sources into writing
- Module 9: Citation practices for writing and presentations
- Module 10: Proofreading and editing

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#### **Memo for New Course**

To: UEC

From: Gilmour Jope, Department Head, ELS Department

Date: June 3, 2020

Subject: Proposal for new course EAP 086: Academic Interactive Communications

#### 1. Rationale for new course:

Speakers of English as an additional language need advanced-level speaking skills to participate successfully in academic and professional group work and teamwork projects. This course develops skills and strategies for group work and team projects through participation in collaborative learning activities and an introduction to cross-cultural communication, negotiation, and conflict resolution.

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

This course adds to the current writing course (EAP 084) and reading course (EAP 080) at the bridge level of the study in the ELS Program at UFV and builds on related speaking skills in EAP 056, EAP 066, and EAP 076.

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

The outcomes of this course align very well with the outcomes of the ELS Certificate Program, which emphasize language development across skill areas and proficiency levels in preparation for undergraduate-level study.

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

No.

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

An ELS department member has consulted with faculty in various areas at UFV with high numbers of new international students with English as an additional language (e.g. Business, CIS, Mathematics, UUP, English, and Communications). Faculty in these areas have expressed concerns about their students' difficulties in participating in group work, team projects, and collaborative learning activities.

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

N/A

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

Appropriate indigenous texts and materials could be used to support the course learning outcomes.

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

N/A

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9. Explain how each of the following will affect the budget for your area or any other area:
Credit value N/A
Class size limit N/A
Frequency of offering N/A
Resources required (labs, equipment) N/A
10. <b>Are field trips required for this course?</b> (Field trip requirements must be announced in the timetable.) How are the trips funded?
N/A
11. Estimate of the typical costs for this course, including textbooks and other materials:
Estimated cost for a course pack \$20.

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: EAP 086	N	lumber of Cre	edits: 3			
Course Full Title: Academic Interactive Com		University Brid	lge Level			
Course Short Title: Uni Bridge Interactive Co						
(Transcripts only display 30 characters. Departments)	artments may r	ecommend a	short title	if one is needed. If left l	blank, one will be assigned.)	
Faculty: Faculty of Access and Continuing E	ducation <b>D</b>	epartment (o	r prograr	m if no department): E	nglish Language Studies	
Calendar Description:						
Focus on language and communication skills required for academic and professional succe verbal and non-verbal communication skills, pcross-cultural collaboration in group projects a	ess. Introduces personal identi	negotiation a	and conflic	ct resolution skills, as we	ell as intercultural	
Prerequisites (or NONE):	evidence of a English lange	any test score uage proficien	or course cy standa			
Corequisites (if applicable, or NONE):	NONE					
Pre/corequisites (if applicable, or NONE):	NONE					
Antirequisite Courses (Cannot be taken for	!	dit.)	Special	l Topics (Double-click o	on boxes to select.)	
Former course code/number:				This course is offered with different topics:  No Yes (If yes, topic will be recorded when offered.)		
Cross-listed with:						
Dual-listed with:				ependent Study		
Equivalent course(s):				•	udy course, this course may	
(If offered in the previous five years, antirequi included in the calendar description as a note for the antirequisite course(s) cannot take this	that students	with credit	be repe	ated for further credit: (I	f yes, topic will be recorded.)  Yes, no limit	
			Transfe	er Credit		
Typical Structure of Instructional Hours					See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		15	⊠ No	∐ Yes		
Tutorials/workshops		25		outline for (re)articulatio		
Supervised laboratory hours		5	⊠ No	Yes (If yes, fill in tra	nsfer credit form.)	
Experiential (field experience, practicum, int	ernship, etc.)		Grading	g System		
Supervised online activities			□ Lette	er Grades 🔲 Credit/N	o Credit	
Other contact hours:			Maximu	um enrolment (for info	rmation only): 20	
	Total hours	45		ed Frequency of Cours	• •	
Labs to be scheduled independent of lecture	hours: 🛛 No	☐ Yes	•		r, Fall only, annually, etc.)	
Department / Program Head or Director: G	ilmour Jope			Date approved:	May 13, 2020	
Faculty Council approval	-			Date approved:	May 29, 2020	
Dean/Associate VP: Sue Brigden				Date approved:	May 29, 2020	
Campus-Wide Consultation (CWC)				Date of posting:		
campus-vide consultation (cvvc)						

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#### **EAP 086**

## 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:

- Explain characteristics of different communication styles and related strategies to communicate effectively.
- · Demonstrate effective communication strategies when working in group and team projects.
- Use pragmatic language functions required for networking, interactive collaboration, negotiation, and dealing with communication breakdown appropriately and accurately in academic and professional contexts.
- Demonstrate conflict resolution skills requiring active listening and negotiation of meaning when working in group and team projects.
- Identify cultural differences that may impede cross-cultural communication in academic and professional contexts.
- · Apply cross-cultural communication skills with culturally diverse peers in teamwork and group projects.
- Analyze scenarios involving cross-cultural miscommunication in academic and professional contexts and identify causes of miscommunication.
- Devise problem-solving strategies to address issues identified in scenarios involving cross-cultural miscommunication in academic and professional contexts.

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Pair work, small group projects and group discussion, team presentations and demonstrations, experiential role plays and simulations, experiential guided discovery activities, case study analysis

#### 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.)

Course pack and online resources will be used. Course pack may include selected resources from the following list.

	Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher \	<b>ear</b>
1.	Shyuang Liu, Zala Volcic, Cindy Gallois	Introducing Intercultural Communication Global Cultures and Contexts		Sage	
2.	Ann Wintergrest and Joe McVeigh     Practical Approaches to Intercultural Communication			Pearson	
3.	Andrea DeCapua and Ann C. Wintergerst	Crossing Cultures in the Language Classroom		McGraw Hill	
4.	Donna Stringer and Patricia Cassiday	52 Activities for Improving Cross Cultural Communication		Stringer	
5.	David Falvey, Simon Kent, David Cotton, Iwonna Dubicka, Margaret O'Keeffe	Market Leader Upper Intermediate Level	$\boxtimes$	Pearson	

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

#### **Typical Evaluation Methods and Weighting**

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

#### Details (if necessary):

## **Typical Course Content and Topics**

- Module 1: Communication skills for effective teamwork
- Module 2: Negotiation, collaboration, and dealing with conflict
- Module 3: Communication across cultures: The cultural onion, unconscious bias, cross-cultural communication differences
- Module 4: Communication across cultures: Understanding cultural differences and intercultural communication skills

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#### **Memo for New Course**

To: College of Arts Curriculum Committee (CACC); Undergraduate Education Committee (UEC)

From: Stephen Piper, GDS Program Chair

Date: 23 March 2020

#### Subject: Proposal for new courses (GDS 299 & 399 Special Topics in Development Studies I & II)

1. Rationale for new course:

These selected topics courses will permit GDS to offer "occasional" or one-off courses that respond to topical concerns and student demand. In our recent program review, students expressed a desire for courses on a wide range of courses that we are currently unable to offer. GDS 299 and 399 will allow us to satisfy this demand either with current faculty or by bringing in sessional instructors. They will also facilitate the introduction of new faculty into the program.

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

These are not required courses. They may be used as electives.

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

The course learning outcomes align with the following program learning outcomes:

- demonstrate a breadth of knowledge about local and/or international development from a variety of disciplinary perspectives;
- apply disciplinary knowledge in the explanation of particular development problems and global processes;
- Identify and explain multiple perspectives and lenses by which to examine key local, national and global issues, and work towards nuanced understandings of these issues;
- as well as other program outcomes dependent on the topic of focus in the course.
- 4. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs?

These courses will not be required by any other program.

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

These courses were approved at a meeting of the GDS Program Committee involving representatives from six different disciplines. The Chair of SCMS has been consulted.

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

No new discipline designation is required.

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

Virtually every GDS course offering includes some study of Indigenous issues and perspectives from around the world. Most instances of GDS 299 and 399 will continue this commitment. We hope that

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these courses will facilitate our (and students') desire to offer new courses with a principal focus on Indigenous development.

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

Theses courses will be eligible for PLAR.

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

No anticipated budgetary impact.

b. Class size limit

No anticipated budgetary impact.

c. Frequency of offering

These courses will be offered as resources permit (budget, faculty interest), in response to demand (student requests, issues of great topical importance and interest), and in consequence of serendipity (e.g. the availability of a great instructor).

d. Resources required (labs, equipment)

None anticipated.

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

Generally, no. If a particular instance of the courses does require field trips, these will be announced in the timetable. Any field trips will be self-funded by students.

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

Typical costs for these courses will be tuition plus books. When possible the courses will draw readings from sources available through the UFV library or online at no cost. When this is not possible, we will endeavor to keep book costs below \$150.00.

## CWC comments and responses:

GDS 299: Suggest changing prerequisites from "15 university-level credits" to "GDS 100".

We will agree to this if it is the only way the course will be approved by UEC. However, we would prefer something less specific than "GDS 100". Currently we have about 45-50 students in the BA-GDS, even though we are reaching enrollments of over 100 students in GDS 100 each year. Unfortunately, most of these students take GDS 100 as a one-time elective with no intention of taking any more GDS courses. Consequently, the proposed prerequisite would likely limit enrollments in GDS 299 to about 10 students per year. Further, the range of topics that could be taught in this course (Environment and Development; Humanitarian Aid; Refugees, Displacement, and Development; Development in Sub-Saharan Africa; etc.) are likely to be of

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interest to students in a wide range of programs who are not likely to have taken GDS 100, but who will have equally helpful prior study. It might be argued that students can always request instructor permission. However, in reality, very few students know about this option and simply avoid courses for which they do not have the prerequisites. Other special topics courses at the 200- and 300-level in a variety of Arts disciplines (ANTH, CRIM, GEOG, HIST, MACS) have similarly permissive prerequisite lists. We ask to be allowed to follow this model.

Our request: "GDS 100 or 15 university-level credits."

GDS 399: Suggest changing prerequisites from "15 university-level credits" to "GDS 100".

We will agree to this if it is the only way the course will be approved by UEC. However, we would prefer something less specific than "GDS 100". Currently we have about 45-50 students in the BA-GDS, even though we are reaching enrollments of over 100 students in GDS 100 each year. Unfortunately, most of these students take GDS 100 as a one-time elective with no intention of taking any more GDS courses. Consequently, the proposed prerequisite would likely limit enrollments in GDS 299 to about 10 students per year. Further, the range of topics that could be taught in this course (Environment and Development; Humanitarian Aid; Refugees, Displacement, and Development; Development in Sub-Saharan Africa; etc.) are likely to be of interest to students in a wide range of programs who are not likely to have taken GDS 100, but who will have equally helpful prior study. It might be argued that students can always request instructor permission. However, in reality, very few students know about this option and simply avoid courses for which they do not have the prerequisites. Other special topics courses at the 200- and 300-level in a variety of Arts disciplines (ANTH, CRIM, GEOG, HIST, MACS) have similarly permissive prerequisite lists. We ask to be allowed to follow this model.

Our request: "GDS 100 or 15 university-level credits."

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: GDS 299	N	umber of Cre	edits: 3 C	ourse credit policy (105)		
Course Full Title: Special Topics in Develop	ment Studies I					
Course Short Title: Spec Topics in Dev Stud	dies I					
(Transcripts only display 30 characters. Depart	nrtments may r	ecommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
Faculty: Faculty of Social Sciences	D	epartment (o	r prograr	n if no department): G	DS .	
Calendar Description:						
An examination of a selected topic within dev are not limited to, crisis and disaster relief, ge					ngs. Topics may include, but	
Prerequisites (or NONE):	GDS 100 or	15 university-l	evel credi	its.		
Corequisites (if applicable, or NONE):	None					
Pre/corequisites (if applicable, or NONE):	None					
Antirequisite Courses (Cannot be taken for	additional cred	dit.)	Special	Topics (Double-click of	n boxes to select.)	
Former course code/number:			This course is offered with different topics:			
Cross-listed with:			☐ No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study			
Equivalent course(s):			If offered as an Independent Study course, this course may			
(If offered in the previous five years, antirequi			be repeated for further credit: (If yes, topic will be recorded.)			
included in the calendar description as a note for the antirequisite course(s) cannot take this			☐ No	Yes, repeat(s)	Yes, no limit	
		,	Transfe	er Credit		
Typical Structure of Instructional Hours			Transfe	r credit already exists: (S	See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		45	⊠ No	Yes		
Tutorials/workshops				outline for (re)articulation		
Supervised laboratory hours			☐ No	Yes (If yes, fill in trar	sfer credit form.)	
Experiential (field experience, practicum, int	ernship, etc.)		Grading	g System		
Supervised online activities			□ Lette	er Grades	Credit	
Other contact hours:			Maximu	um enrolment (for infor	mation only): 36	
	Total hours	45		ed Frequency of Cours	• ,	
Labs to be scheduled independent of lecture	hours: No	☐ Yes		y (Every semester, Fall o	•	
Department / Program Head or Director: S	tephen Piper			Date approved:	March 3, 2020	
Faculty Council approval				Date approved:	May 5, 2020	
Dean/Associate VP: Jacqueline Nolte				Date approved:	May 5, 2020	
Campus-Wide Consultation (CWC)					l 00 0000	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	

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#### **GDS 299**

## 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:

- Define and discuss a specific topic in development studies.
- Identify and describe themes and debates deemed essential to an understanding of the topic.
- Explain the relationship between this topic and the broader field of development studies and practice.
- Explain regional, historical and ideological variations in approaches to the topic.
- Communicate a strong argument related to the topic.

## Prior Learning Assessment and Recognition (PLAR)

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Lecture, seminar, classroom discussion. Lectures may include films and guest speakers. Field trips may be required.

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.) Title (article, book, journal, etc.) Current ed. Publisher Author (surname, initials) Year Visvanathan, Nalini, Lynn 1. Duggan, Nan Wiegersma Zed 2011 The Women, Gender & Development Reader $\boxtimes$ and Laurie Nisonoff 2. 3. 4. 5. $\Box$

Required Additional Supplies and Materials (Software, hardware, tools, specialized clothing, etc.) Additional readings posted on BlackBoard.

## **Typical Evaluation Methods and Weighting**

Final exam:	20%	Assignments:	35%	Field experience:	%	Presentations:	15%
Midterm exam:	20%	Project:	%	Practicum:	%	Participation:	10%
Quizzes/tests:	%	Lab work:	%	Shop work:	%	Total:	100%

## Details (if necessary):

## **Typical Course Content and Topics**

(If taught as Gender and Development)

- Women in Development (WID)
- Women and Development (WAD)
- Gender and Development (GAD)
- Mainstreaming Gender (MG)
- Neoliberalism and Gender
- The Feminization of Labour
- Global Restructuring and Survival Strategies
- Women and Microcredit
- Gender, Nature and Ecofeminism
- Women and Reproductive Rights
- Gender-based Violence, Femicide, FGM
- Women in Politics
- Moving Forward: New Social Movements, Community Kitchens, and Feminist NGOs.

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: GDS 399	N	Number of Credits: 4 Course credit policy (105)				
Course Full Title: Special Topics in Develop	ment Studies	II				
Course Short Title: Spec Topics in Dev Stud						
(Transcripts only display 30 characters. Department	nrtments may i	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
Faculty: Faculty of Social Sciences	D	epartment (o	r prograi	m if no department): Gl	OS	
Calendar Description:						
An examination of a selected topic within deverge not limited to, education and development development project planning and management	t, health and d				0 , ,	
Prerequisites (or NONE):	45 university	-level credits.	Prior stud	lies in GDS recommend	ed.	
Corequisites (if applicable, or NONE):	None					
Pre/corequisites (if applicable, or NONE):	None					
Antirequisite Courses (Cannot be taken for	additional cre	dit.)	Specia	Topics (Double-click o	n boxes to select.)	
Former course code/number:			This course is offered with different topics:  ☐ No ☐ Yes (If yes, topic will be recorded when offered)			
Cross-listed with:						
Dual-listed with:			Independent Study			
Equivalent course(s):			If offered as an Independent Study course, this course may			
(If offered in the previous five years, antirequi included in the calendar description as a note for the antirequisite course(s) cannot take this	that students	with credit	be repeated for further credit: (If yes, topic will be recorded.)  ☐ No ☐ Yes, repeat(s) ☒ Yes, no limit			
To the arminoquione oburdo(o) barmer take and	, coarco 101 1a	runor oroana,	Transfe	er Credit		
Typical Structure of Instructional Hours			Transfe	r credit already exists: (\$	See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		60	<ul><li>☑ No ☐ Yes</li><li>Submit outline for (re)articulation:</li></ul>			
Tutorials/workshops						
Supervised laboratory hours			∐ No	Yes (If yes, fill in trar	nsfer credit form.)	
Experiential (field experience, practicum, int	ernship, etc.)		Gradin	g System		
Supervised online activities			□ Lette	er Grades	Credit	
Other contact hours:			Maximu	um enrolment (for infor	mation only): 26	
	Total hours	60	Expected Frequency of Course Offerings:			
Labs to be scheduled independent of lecture hours: \( \subseteq \text{No} \subseteq \text{Yes}				y (Every semester, Fall o	•	
Department / Program Head or Director: Si	tephen Piper			Date approved:	March 3, 2020	
Faculty Council approval				Date approved:	May 5, 2020	
Dean/Associate VP: Jacqueline Nolte				Date approved:	May 5, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	
Undergraduate Education Committee (UEC) approval				Date of meeting:	October 2, 2020	

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#### **GDS 399**

## 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:

- Explain in detail the importance and implications of the topic for development theory and practice.
- Apply theoretical perspectives and substantive knowledge related to the topic in analyses of specific instances.
- Debate opposing perspectives and strategies related to the topic, including differences between regions, points in time and political orientations.
- Plan and execute research specific to the topic.
- Communicate in oral and written form a strong argument related to the topic and its practical applications.

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Lecture, seminar, classroom discussion. Lectures may include films and guest speakers. Field trips may be required.

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.)						
name, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year		
nan, and	Reimagining Global Health: An Introduction.	$\boxtimes$	University of California Press	2013		
				_		
	and Resource M name, initials) I, Jim Yong Kim, nan, and silico	name, initials) Title (article, book, journal, etc.)  I, Jim Yong Kim, nan, and Reimagining Global Health: An Introduction.	name, initials) Title (article, book, journal, etc.) Current ed.  I, Jim Yong Kim, nan, and Reimagining Global Health: An Introduction.	name, initials)  Title (article, book, journal, etc.)  Current ed. Publisher  I, Jim Yong Kim, nan, and Reimagining Global Health: An Introduction.  University of California Press		

Required Additional Supplies and Materials (Software, hardware, tools, specialized clothing, etc.) Additional readings posted on BlackBoard.

## **Typical Evaluation Methods and Weighting**

Final exam:	20%	Assignments:	40%	Field experience:	%	Presentations:	15%
Midterm exam:	15%	Project:	%	Practicum:	%	Participation:	10%
Quizzes/tests:	%	Lab work:	%	Shop work:	%	Total:	100%

## Details (if necessary):

## **Typical Course Content and Topics**

(If taught as Health and Development)

- What is Global Health?
- Foundations in Global Health: Theory and Critique
- · Colonial Hygiene Movements
- The Global Health System
- Global Health and Development Policies
- Medicine, Epidemiology, and Population Health
- International Development, International Relations, and Global Health Diplomacy
- Business, Technology, and Innovation
- Humanitarian Disasters
- Global Health Metrics
- Methods and Global Health
- Successes and Failures in Global Health Management

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	Memo for Course Changes
o:	
rom: Chri	stina Neigel, Department Head, Department of Information Studies
ate: Augı	ıst 19, 2020
ubject: P	roposal for discontinuation of LIBT 161: Work Place Site Visits
Summ	ary of changes (select all that apply):
☐ Six	-year review
□ Nu	mber and/or course code
☐ Cre	edits and/or total hours
□ Tit	e
☐ Cal	endar description
☐ Pre	requisites and/or co-requisites
	quency of course offering
	arning outcomes
	livery methods and/or texts and resource materials
	AR options, grading system, and/or evaluation methods
	continuation of course
□ Oti	ner – Please specify:
. Ration	ale for change:
	09, changes to the Library & Information Technology program introduced the LIBT 162: Work
	te Visits (3-credit course). All new LIBIT students were required to take LIBT 162. The previous
	LIBT 161: Work Place Site Visits (1.5 credit) was gradually phased out as current students ted it. The last student to require the LIBT 161 course has completed it and we are now asking
-	e course be discontinued as it has been fully replaced by LIBT 162.
	are substantial changes to the learning outcomes, explain how they align with the learning
	es of the program(s): n/a
	course required by any program beyond the discipline? If so, how will this change affect that
progra	m or programs? No
. Which	program areas have been consulted about the change(s)? n/a
. What	consideration has been given to indigenizing the curriculum? n/a
. If this	course is not eligible for PLAR, explain why: n/a
. If any	of the following items on the official course outline have changed, explain how the change will
-	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)
. Are fie	ld trips required for this course? (Field trip requirements must be announced in the
	ble.) How are the trips funded? n/a

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	Memo for Course Changes
То	
Fro	m: Christina Neigel, Department Head, Department of Information Studies
Da	te: August 19, 2020
Su	oject: Proposal for discontinuation of LIBT 265: Practicum/Capstone Project
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     □ Discontinuation of
	☐ Other – Please specify:
2.	Rationale for change:
	In 201509, changes to the Library & Information Technology program introduced the LIBT 266:
	Practicum/Capstone Project (3-credit course). All new LIBIT students were required to take LIBT 266.
	The previous course LIBT 265: Practicum/Capstone Project (1.5 credit) was gradually phased out as
	current students completed it. The last student to require the LIBT 265 course has completed it and
	we are now asking that the course be discontinued as it has been fully replaced by LIBT 266.
	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? No
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
	Estimate of the typical costs for this course, including textbooks and other materials: n/a

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	Memo for Course Changes
To:	FSCC, SFC, and UEC
Fror	n: Ian Affleck, Department Head (Mathematics & Statistics)
Date	e: May 5, 2020
Sub	ject: Proposal for revision of STAT 104
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
	$\ \square$ PLAR options, grading system, and/or evaluation methods
	☐ Discontinuation of course
	☑ Other: Equivalent courses

#### 2. Rationale for change:

Currently students may not receive credit for STAT 104 if they have previously received credit for STAT 106 or STAT 270, although they may receive credit for STAT 106 or STAT 270 after receiving credit for STAT 104. This "one-directional equivalence" of the courses is awkward for some students, and we propose that it be removed.

As an example of the difficulties that have arisen for students, if a student earns a poor grade in STAT 106, then wishes to take STAT 104 instead to meet the requirements of their program, they can't do so. Meanwhile, a student who *fails* STAT 106 is subsequently able to take STAT 104 for credit.

While there is some overlap in the content covered in the three courses, the approach taken in each to provide an appreciation and understanding of statistics is quite different. A student with no math background (but with 45 or more university credits) can take STAT 104 to gain an appreciation of how statistical knowledge allows the interpretation of real-world meaning from data with very minimal mathematical computations. STAT 106 imparts this appreciation in a much more mathematical way, ideal for programmers, experimental scientists and economists, while STAT 270 demonstrates the mathematics *behind* the statistical theory using Calculus.

An example of a student who could greatly benefit by taking STAT 104 after STAT 106 or STAT 270 is one who is planning to enter Secondary TEP with Math as a teachable subject. The manner in which statistics is presented in STAT 104 will be very close to the manner in which it will be presented by this student when they teach Statistics 12 in high school.

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Some Faculties may feel that the overlap in content between STAT 104 and STAT 106 is great enough that they prefer that only one of these courses should be allowed to count for credit towards one or more of their programs. For this reason, we propose including the following note below the calendar description:

"Some degree and diploma credentials may allow only one of STAT 104 and STAT 106 to count as credit towards meeting program requirements."

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

There are no proposed changes to the Learning Outcomes.

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

As mentioned above in (2), the proposed change will give greater flexibility to students in how they meet program requirements involving a statistics course.

- 5. Which program areas have been consulted about the change(s)? None.
- 6. What consideration has been given to indigenizing the curriculum?
  Indigenization efforts in the department take place primarily at the program and the pedagogy level.
- 7. If this course is not eligible for PLAR, explain why: This course is eligible for PLAR.
- 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)

None of the above items are changing on the course outline.

- 9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? No field trips are required.
- 10. Estimate of the typical costs for this course, including textbooks and other materials:

Typical costs for the course are roughly \$xxx, the cost of a textbook and online homework system package.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 1993
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED: (six years after UEC approval) September 2023

Course outline form version: 09/15/14

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

Course Code and Number: STAT 104		Numb	er of	Credits: 4	Course credit policy (105)		
Course Full Title: Introductory Statistics		•					
Course Short Title (if title exceeds 30 characters):							
Faculty: Faculty of Science		Depa	rtmen	t (or prog	ram if no department):	Mathematics & Statistics	
Calendar Description:		1					
A basic introduction to descriptive statistics, proba Recommended for anyone who wishes to evaluate science. Using statistical computer software is ess	resear	ch involv	ing sta				
Note: As a general rule, students with Mathematic STAT 106, and those with a full year of calculus at the requirements of their program. The UFV Mather requires STAT 106 or STAT/MATH 270.  Note: Some degree and diploma credentials may a program requirements.	e prepa ematics	red to ta major pr	ke ST. ogram	AT 270/M/ requires \$	ATH 270. Before register STAT 270, while the Mat	ring, students should check hematics minor program	
Prerequisites (or NONE):  One of the following: (C or better in one of Principles of Mathematics 11, Applications Mathematics 11, MATH 085, Foundations of Mathematics 11, or Pre-calculus 11) or (better in Apprenticeship and Workplace Mathematics 12) or (one of Foundations of Mathematics 12, Pre-calculus 12, Principles of Mathematics 12, or Applications of Mathematics 12) or (any UFV MATH course numbered 092 or higher) or (a score of 1 or better on Part A of the MSAT) or (45 university-level credits with department permission).					or Pre-calculus 11) or (B or ne of Foundations of 2, or Applications of higher) or (a score of 17/25		
Equivalent Courses (cannot be taken for additional	l credit)			Transfe	r Credit		
Former course code/number: MATH 104				Transfer credit already exists: ⊠ Yes ☐ No			
Cross-listed with:				Transfer credit requested (OReg to submit to BCCAT):			
Equivalent course(s): Note: Equivalent course(s) should	ıld be inc	luded in t	he				
calendar description by way of a note that students with	credit for	the equiv	alent				
course(s) cannot take this course for further credit.				Resubmit revised outline for articulation:   Yes   No			
				To find ou	it how this course transfers,	see <u>bctransferguide.ca</u> .	
Total Hours: 60				Special	Topics		
Typical structure of instructional hours:			_		course be offered with di	fferent topics?	
Lecture hours		40		☐ Yes [	⊠ No		
Seminars/tutorials/workshops				If ves di	fferent lettered courses r	may be taken for credit:	
Laboratory hours		20		-		Yes, no limit	
Field experience hours					100, 10podi(0) [	_ 1 00, 110 mint	
Experiential (practicum, internship, etc.)				Note: The	e specific topic will be record	ded when offered.	
Online learning activities				Maximu	m enrolment (for inform	ation only): 36	
Other contact hours:					•	offerings (every semester,	
Т	otal	60	]	•	every other year, etc.): E	• • • • • • • • • • • • • • • • • • • •	
Department / Program Head or Director: lan Aff	leck				Date approved:	May 2020	
Faculty Council approval					Date approved:	May 29, 2020	
Dean/Associate VP: Lucy Lee					Date approved:	May 29, 2020	
Campus-Wide Consultation (CWC)					Date of posting:	June 26, 2020	
Undergraduate Education Committee (UEC) ap	proval				Date of meeting:	October 2, 2020	

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#### **STAT 104**

## 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. Construct histograms, boxplots, and other graphs from raw data, and interpret these graphs.
- 2. Obtain simple measures of location and dispersion from the data, and interpret the same.
- 3. Calculate the correlation between two linearly related variables, and obtain, use, and interpret lines of "best" fit.
- 4. Solve simple problems in probability requiring knowledge of conditional probability and statistical independence.
- 5. Use simple mathematical models for commonly occurring situations such as sampling with replacement, and physical or biological measurements.
- 6. Solve simple problems involving the distribution of the sample mean.
- Construct and interpret confidence intervals for means and proportions and for differences in means, and check the conditions for inference in these cases.
- 8. Conduct tests of hypotheses for means and proportions and for differences in means, interpret p-values, check conditions for inference in these cases.
- 9. Draw inferences using linear regression.
- 10. Apply Pearson's chi-square statistic to draw inferences in appropriate categorical sampling situations.
- 11. Identify sources of potential bias in data and be able to obtain their own random samples.
- 12. Use statistical software for calculations and graphs throughout the course.

Prior Learning Assessment and Recognition (PLAR)							
	e because						
<b>Typical Instructional Methods (guest lecturers, presentation</b> A calculator is required.	is, online instruction, field trips, etc.; may vary at department's discretion)						
Grading system: Letter Grades: ⊠ Credit/No Credit: □	Labs to be scheduled independent of lecture hours: Yes ☐ No ☒						

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

Ту	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.	Moore, D.S., Notz, W.I. & Fligner, M.A.	The Basics Practice of Statistics, 7 <sup>TH</sup> Edition	$\boxtimes$	Freeman	2015			
2.								
3.								
4.								
5.								

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

## **Typical Evaluation Methods and Weighting**

Final exam:	40%	Assignments:	10%	Midterm exam:	30%	Practicum:	%
Quizzes/tests:	20%	Lab work:	%	Field experience:	%	Shop work:	%
Other:	%	Other:	%	Other:	%	Total:	100%

## Details (if necessary):

## **Typical Course Content and Topics**

- 1. Introduction to statistical concepts, e.g. variation; and software, e.g. MINITAB, Excel, SPSS.
- 2. Descriptive statistics: Use statistical software to obtain histograms, stem-and-leaf plots, boxplots, etc. Measures of location, e.g. mean, median, mode; and scale, e.g. standard deviation, quartiles. Bivariate data: use statistical software to obtain correlation, linear regression line, use and interpret computer output.
- 3. Probability: Two-way tables, Venn and tree diagrams; joint, marginal and conditional probability. Independence and dependence. Simple models for discrete random variables, sampling with and without replacement. The normal distribution, standardization application of Central Limit Theorem.
- 4. Inferential statistics: Estimation, confidence intervals and tests of hypothesis for means, proportions and differences of means; p-values; conditions for inference. Pearson's chi-square statistic applied to a variety of problems, e.g. goodness-of-fit, testing for independence in a two-way table. Confidence intervals and test of hypothesis about the slope in simple linear regression.
- 5. Bad sampling designs (eg voluntary response samples, convenience samples) and other sources of error in data, use random number table to obtain simple random samples.
- 6. If time allows: simple experimental design.

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	Memo for Course Changes
	FSCC, SFC, and UEC
	m: Ian Affleck, Department Head (Mathematics & Statistics)
Da	te: May 5, 2020
Su	oject: Proposal for revision of STAT 106
1.	Summary of changes (select all that apply):
	Six-year review     Number and /ar assume and a
	<ul><li>□ Number and/or course code</li><li>□ Credits and/or total hours</li></ul>
	☐ Title
	□ Calendar description
	☐ Prerequisites and/or co-requisites
	☐ Frequency of course offering
	<ul><li>☑ Learning outcomes</li><li>☑ Delivery methods and/or texts and resource materials</li></ul>
	□ PLAR options, grading system, and/or evaluation methods
	☐ Discontinuation of course
	☑ Other: Equivalent courses
2.	Rationale for change:
	(A) Learning Outcomes
	Learning Outcomes for the course are not changing significantly. Most proposed changes are
	simply rephrasing to more accurately describe what the Learning Outcomes have been and will continue to be.
	The one exception to this is the removal of the Learning Outcome "Use categorical predictors in
	multiple linear regression by defining indicator (dummy) variables." Instructors of STAT 106 are in agreement that this should not be an official Learning Outcome for the course, although some
	instructors may wish to visit this topic if time permits.
	(B) Course Equivalence
	Currently students may not receive credit for STAT 104 if they have previously received credit
	for STAT 106 or STAT 270, although they may receive credit for STAT 106 or STAT 270 after receiving
	credit for STAT 104. This "one-directional equivalence" of the courses is awkward for some students, and we propose that it be removed.
	As an example of the difficulties that have arisen for students, if a student earns a poor grade in
	STAT 106, then wishes to take STAT 104 instead to meet the requirements of their program, they
	can't do so. Meanwhile, a student who <i>fails</i> STAT 106 is subsequently able to take STAT 104 for

COURSE OUTLINES Page 58 of 112

While there is some overlap in the content covered in the three courses, the approach taken in each to provide an appreciation and understanding of statistics is quite different. A student with no math background (but with 45 or more university credits) can take STAT 104 to gain an appreciation of how statistical knowledge allows the interpretation of real-world meaning from data with very minimal mathematical computations. STAT 106 imparts this appreciation in a much more mathematical way, ideal for programmers, experimental scientists and economists, while STAT 270 demonstrates the mathematics *behind* the statistical theory using Calculus.

An example of a student who could greatly benefit by taking STAT 104 after STAT 106 or STAT 270 is one who is planning to enter Secondary TEP with Math as a teachable subject. The manner in which statistics is presented in STAT 104 will be very close to the manner in which it will be presented by this student when they teach Statistics 12 in high school.

Some Faculties may feel that the overlap in content between STAT 104 and STAT 106 is great enough that they prefer that only one of these courses should be allowed to count for credit towards one or more of their programs. For this reason, we propose including the following note below the calendar description:

"Some degree and diploma credentials may allow only one of STAT 104 and STAT 106 to count as credit towards meeting program requirements."

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 are not substantial.

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

As mentioned above in (2B), the proposed change will give greater flexibility to students in how they meet program requirements involving a statistics course.

- 5. Which program areas have been consulted about the change(s)? None.
- What consideration has been given to indigenizing the curriculum?
   Indigenization efforts in the department take place primarily at the program and the pedagogy level.
- 7. If this course is not eligible for PLAR, explain why: This course is eligible for PLAR.
- 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

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# AGENDA ITEM # 4.6.

	c. Frequency of offering
	d. Resources required (labs, equipment)
	None of the above items are changing on the course outline.
9.	Are field trips required for this course? (Field trip requirements must be announced in the
	timetable.) How are the trips funded? No field trips are required.
10	. Estimate of the typical costs for this course, including textbooks and other materials:
	Typical costs for the course are roughly \$xxx, the cost of a textbook and online homework system package.
	pastinger.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 1990
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED: (six years after UEC approval) October 2026

Course outline form version: 09/15/14

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

Course Code and Number: STAT 106		Num	ber of	Credits: 4	Course credit policy (105)	
Course Full Title: Statistics I						
Course Short Title(if title exceeds 30 characteristics)	ters):					
Faculty: Faculty of Science		Depa	rtmen	t (or prog	ram if no department):	Mathematics and Statistics
Calendar Description:						
An introduction to descriptive statistics, sam variances, including multiple linear regression required.						
Note: As a general rule, students with Mathe STAT 106, and those with a full year of calc the requirements of their program. The UFV requires STAT 106 or STAT 270.	ulus are pre	pared to ta	ake ST	AT 270/M/	ATH 270. Before register	ring, students should check
Note: Some degree and diploma credentials program requirements.	may allow	only one o	f STAT	104 and	STAT 106 to count as cr	edit towards meeting
Prerequisites (or NONE):	One of the following: (C or better in one of Pre-calculus 11, Applications of Mathematics 12, Principles of Mathematics 12, Pre-calculus 12, MATH 092, MATH 096, MATH 110, MATH 124, or MATH 140) or (C or better in both MATH 094 and MATH 095) or (B or better in Foundations of Mathematics 12) or (a score of 17/25 or better on Part B of the MSAT together with a score of 34/50 or better on Parts A and B combined).					
Corequisites (if applicable, or NONE):	NONE					
Equivalent Courses (cannot be taken for ad	ditional cred	it)		Transfer	Credit	
Former course code/number: MATH 106		•		Transfer credit already exists: ⊠ Yes ☐ No		
Cross-listed with:				,		
Equivalent course(s):				Transfer credit requested (OReg to submit to BCCAT):  ☐Yes☐No(if yes, fill in transfer credit form)		
Note: Equivalent course(s) should be included in way of a note that students with credit for the equ this course for further credit.					INO(If yes, fill in transfer creater it revised outline for artic	,
Total Hours: 60				Special	Topics	
Typical structure of instructional hours:				Will the o	course be offered with di	fferent topics?
Lecture hours		40	1	☐ Yes∑	〗 No	
Seminars/tutorials/workshops				الأيرم مائا	Savant lattered sevenses	nou ha takan far aradit.
Laboratory hours		20		□ No [	fferent lettered courses r	_ *
Field experience hours			1		res, repeat(s)L	Yes, no limit
Experiential (practicum, internship, etc.)				Note: The	specific topic will be record	ded when offered.
Online learning activities				Mavimu	m enrolment(for informa	etion only): 36
Other contact hours:					,	offerings (every semester,
	Total	60	]		every other year, etc.): E	
Department / Program Head or Director:	lan Affleck				Date approved:	May 2020
Faculty Council approval				<u> </u>	Date approved:	May 29, 2020
Dean/Associate VP: Lucy Lee					Date approved:	May 29, 2020
Campus-Wide Consultation (CWC)					Date of posting:	June 26, 2020
Undergraduate Education Committee (UI	C) approva	<u></u>			Date of meeting:	October 2, 2020

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#### **STAT 106**

#### 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. Differentiate between the population and the sample; display variety of sampling methods targeting a population with minimal bias, for example, simple random sampling, stratified random sampling, cluster sampling, etc.
- 2. Construct frequency tables and use numerical and graphical methods to explore qualitative and quantitative data.
- 3. Obtain measures of location, dispersion, and relative standing, and interpret.
- 1. Solve simple problems in probability requiring knowledge of conditional probability and statistical independence.
- 5. Solve problems regarding binomial and normal probability models; identify the sampling distribution of the sample mean and sample proportion.
- 6. Construct and interpret confidence intervals for a population mean and a population proportion.
- 7. Conduct hypothesis test for a population mean and a population proportion and interpret p-value.
- 8. Compare two population means and two population proportions by constructing confidence intervals and performing test of hypothesis.
- 9. Use the Analysis of Variance (ANOVA) method to test equality of three or more population means.
- 10. Apply Pearson's chi-square statistic to draw inferences in appropriate categorical sampling situations.
- 11. Display and interpret simple and multiple linear regression models and the associated ANOVA tables.
- 12. Use statistical software (for example Minitab) to produce graphs and perform statistical analysis.

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 discretic Lectures, mixed with sessions in the computer lab.	on)
Grading system: Letter Grades: ⊠ Credit/No Credit: □ Labs to be scheduled independent of lecture hours: Yes □ No ∑	3

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

## Typical Text(s) and Resource Materials

The text is chosen by a departmental curriculum committee. Recent text:

Author (surn	me, initials) Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1. McClave and	Sincich Statistics. 13th edition		Prentice-Hall	
2.				
3.				

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

A scientific calculator with statistical functions is required.

## **Typical Evaluation Methods and Weighting**

Final exam:	40%	Assignments:	10%	Midterm exam:	%	Practicum:	%
Quizzes/tests:	50%	Lab work:	%	Field experience:	%	Shop work:	%
Other:	%	Other:	%	Other:	%	Total:	100%

Details (if necessary): Students must achieve at least 40% on the final exam in order to receive credit for this course.

## **Typical Course Content and Topics**

- 1. Introduction to statistical concepts: types of statistical application, distinguishing between population and sample, types of data, and role of statistics in real world problems.
- 2. Descriptive statistics:
  - Frequency tables, histograms, cumulative frequencies, box plot, bar graph, pie chart, etc.
  - Measures of location, e.g. mean, median, mode; and scale, e.g. standard deviation, quantiles, Identifying outliers by box plot.
- 3. Probability: two-way tables, Venn and tree diagrams; joint, marginal and conditional probability, mutually exclusive events, independence events, Bayes' Theorem, counting rules, etc.
- 4. Random variables: the expected value, variance and standard deviation of a general discrete random variable; illustrate that certain random events can be described by discrete (Binomial) or continuous (Uniform and Normal) distribution models and apply each to find probabilities.
- 5. Sampling distribution: apply the Central Limit Theorem to both the sample mean and sample proportion and determine how likely they are to fall within a given range of values.
- 6. Inferential statistics: estimation, confidence intervals and tests of hypothesis.
  - The Z-test and Student's t-test applied to proportions and means for one and two populations.
  - Pearson's chi-square statistic applied to goodness-of-fit test in a one-way table and independence test in a two-way table. F-test in one-way ANOVA applied to comparison of the means of several populations.
- 7. Finding relationship between variables: Simple and multiple linear regression, least square estimation and interpretation of the coefficients, confidence intervals and testing hypothesis for coefficients, coefficient of correlation, coefficient of determination, using the regression model for estimation, prediction and stepwise regression.

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#### **Memo for New Course**

To: CACC, UEC

From: Heather Davis-Fisch, SoCA Director

Date: April 15, 2020

## Subject: Proposal for new course MEDA 395: Special Topics in Media Arts

- 1. Rationale for new course: This course provides students with an opportunity to explore a specific area of media arts. It will allow the program to be more responsive to student needs and to changes in emerging technologies and the media arts industries.
- How this new course fits into program(s): This course will be an elective for Media Arts and Creative Arts students.

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

- 3. Explain how the course learning outcomes align with the learning outcomes of the program(s):The course learning outcomes align with the following learning outcomes of the Bachelor of Media Arts degree:
  - Apply the methods, theories, or practices of two or more distinct creative fields
  - Situate digital media within historical and theoretical contexts, including identifying drivers of technological and social change
  - Manage projects effectively
  - · Communicate persuasively, clearly, and professionally in person-to-person and written contexts
  - Apply knowledge of media law and ethical principles to information sharing and intellectual property use
- 4. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs? No
- Which program areas have been consulted about the course? School of Creative Arts, Graphic and Digital Design
- 6. If a new discipline designation is required, explain why: NA
- 7. What consideration has been given to indigenizing the curriculum? The course topic and methods will vary in each offering; however, this course could be used to deliver Indigenous-focused content and could easily include examples from Indigenous media arts.
- 8. If this course is not eligible for PLAR, explain why:
- 9. Explain how each of the following 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)
- 10. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? If field trips were offered, they would be funded by students.

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# AGENDA ITEM # 4.7.

11. Estimate of the typical costs for this course, including textbooks and other materials: \$150
11. Estimate of the typical costs for this course, moraling textsoons and other materials, \$150

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: MEDA 395 Number of C				redits: 4 Course credit policy (105)			
Course Full Title: Special Topics in Media Al Course Short Title: (Transcripts only display 30 characters. Depa		recommend a	short title	if one is needed. If left b	lank, one will be assigned.)		
Faculty: Faculty of Humanities	D	Department (c	r prograi	n if no department): Me	edia Arts		
Calendar Description:	I						
Provides students with an opportunity to explo Note: This course will be offered under differe credit provided the letter designation differs.				,			
Prerequisites (or NONE):	45 university	-level credits,	including	MEDA 100.			
Corequisites (if applicable, or NONE):							
Pre/corequisites (if applicable, or NONE):							
Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with: Dual-listed with: Equivalent course(s):			Special Topics (Double-click on boxes to select.)  This course is offered with different topics:  □ No ☑ Yes (If yes, topic will be recorded when offered.)  Independent Study  If offered as an Independent Study course, this course may				
(If offered in the previous five years, antirequi- included in the calendar description as a note for the antirequisite course(s) cannot take this	that students	with credit	be repeated for further credit: (If yes, topic will be recorded.)  No Yes, repeat(s) Yes, no limit  Transfer Credit				
Typical Structure of Instructional Hours			Transfe ⊠ No	,	See <u>bctransferguide.ca</u> .)		
Lecture/seminar hours		35		_			
Tutorials/workshops		25	Submit outline for (re)articulation:  No Yes (If yes, fill in transfer credit form.)				
Supervised laboratory hours	amahin ata\				ioror orogin romany		
Experiential (field experience, practicum, into Supervised online activities	emsnip, etc.)		Grading System  ⊠ Letter Grades □ Credit/No Credit				
Other contact hours:							
Carlot doritade ficure.	Total hours	60	Maximum enrolment (for information only): 25				
Labs to be scheduled independent of lecture h				ed Frequency of Cours ther year. <i>(Every seme</i> s	e Offerings: ter, Fall only, annually, etc.)		
Department / Program Head or Director: He	eather Davis-F	Fisch		Date approved:	May 2020		
Faculty Council approval				Date approved:	May 19, 2020		
Dean/Associate VP: Jacqueline Nolte				Date approved:	May 19, 2020		
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020		
Undergraduate Education Committee (UEC	*) annuaral			Date of meeting:	October 2, 2020		

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## **MEDA 395**

## 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:

- Apply methods, theories or practices relevant to the chosen topic.
- Analyze course themes or concepts in group discussions, studio or lab work, and/or writing.
- Demonstrate self-reflexivity and intellectual curiosity in relation to course material.
- Produce a research project, following a process that includes identifying a research question, locating and evaluating source material, and synthesizing multiple sources effectively.
- · Apply research methods as relevant to the chosen topic and field, demonstrating knowledge of intellectual property use.
- Communicate persuasively, clearly and professionally, in methods appropriate to context of the course.
- Situate the topic in historical and theoretical contexts.

Prior Learning Assessment and Recognition (PLAR	Prior	Learning	Assessment	and Reco	gnition (	(PLAR)
---	-------	----------	------------	----------	-----------	--------

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Lecture, discussion, student presentations, lab/studio workshops.

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 1. Williams, R. The Animator's Survival Kit 2001 The VES Handbook of Visual Effects: Industry 2. Zwerman, S. (ed.) 2010 Standard VFX Practices and Procedures The Visual Story: Creating the Visual Structure of 3. Block, B. 2007 Film, TV, and Digital Media 4. 

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

## Typical Evaluation Methods and Weighting

Final exam:	%	Assignments:	40%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Project:	50%	Practicum:	%	Participation:	10%
Quizzes/tests:	%	Lab work:	%	Shop work:	%	Total:	100%

#### Details (if necessary):

## **Typical Course Content and Topics**

Digital Performance

Week 1 Introduction

Week 2 Production Planning

Week 3-6 Motion Builder

Week 7 Field Trip

Week 8-9 Maya

Week 10 Virtual Reality

Week 11 Game Engine Integration

Week 12-13 Final Presentations

COURSE OUTLINES Page 66 of 112

#### **Memo for New Course**

To: CACC, UEC

From: Heather Davis-Fisch, SoCA Director

Date: April 15, 2020

## Subject: Proposal for new course MEDA 490: Directed Studies in Media Arts

- Rationale for new course: This course will allow upper year students to explore an area of their choice, identified in part through their work in MEDA 360, that will help them achieve their professional or creative goals.
- How this new course fits into program(s): This course is an elective for students in the Bachelor of Media Arts.

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

- 3. Explain how the course learning outcomes align with the learning outcomes of the program(s):
  Depending on the student's choice of topic or project, this course may contribute to the delivery of the following program learning outcomes:
  - Apply the methods, theories, or practices of two or more distinct creative fields
  - Demonstrate technical competency using and independently learning how to use digital media technology applications
  - Situate digital media within historical and theoretical contexts, including identifying drivers of technological and social change
  - Manage projects effectively
  - Demonstrate the ability to plan out career and creative goals, to develop a plan to meet goals, and to reflect on the self-development process
  - · Communicate persuasively, clearly, and professionally in person-to-person and written contexts
  - Demonstrate an understanding of principles of visual communication and design
  - Use a range of techniques to tell effective and compelling stories through words and images
  - Develop concepts and use prototyping methods to evaluate validity/utility of ideas
- 4. Will this course be required by any program beyond the discipline? If so, how will this course affect that program or programs? No
- 5. Which program areas have been consulted about the course? School of Creative Arts, Graphic and Digital Design
- 6. If a new discipline designation is required, explain why: NA
- 7. What consideration has been given to indigenizing the curriculum? The topic and methods of this course will depend on the student's proposal. The course can provide an opportunity for students to explore areas of Indigenous media arts not otherwise addressed in the Bachelor of Media Arts program.
- 8. If this course is not eligible for PLAR, explain why: NA
- 9. Explain how each of the following will affect the budget for your area or any other area:

COURSE OUTLINES Page 67 of 112

# AGENDA ITEM # 4.7.

a. Credit value
b. Class size limit
c. Frequency of offering
d. Resources required (labs, equipment)
10. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded? NA
<ol> <li>Estimate of the typical costs for this course, including textbooks and other materials: Dependent on student topic choice. Approx. \$0-\$150.</li> </ol>

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ORIGINAL COURSE IMPLEMENTATION DATE: January 2021

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: MEDA 490	N	lumber of Cre	edits: 4 C	ourse credit policy (105)		
Course Full Title: Directed Studies in Media Course Short Title: (Transcripts only display 30 characters. Depa		recommend a	short title	if one is needed. If left h	alank one will be assigned )	
Faculty: Faculty of Humanities				n if no department): Me		
Calendar Description:		epartinent (0	prograi	ii ii iio departinentij. Mi	eula Al IS	
Students have the opportunity to pursue in-de offered. Students develop detailed individual study to be undertaken and how the course w	course propos	als in consulta				
Note: Students may take this course for credi	t more than or	nce provided it	is under	different topics.		
Prerequisites (or NONE):	MEDA 360.					
Corequisites (if applicable, or NONE):						
Pre/corequisites (if applicable, or NONE):						
Antirequisite Courses (Cannot be taken for	additional cre	dit.)	Special	Topics (Double-click o	n boxes to select.)	
Former course code/number:			This course is offered with different topics:			
Cross-listed with:			No ☐ Yes (If yes, topic will be recorded when offered.)			
Dual-listed with:			Independent Study			
Equivalent course(s):			If offered as an Independent Study course, this course may			
(If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this	that students	dents with credit		be repeated for further credit: (If yes, topic will be recorded.  No Yes, repeat(s) Yes, no limit		
		,	Transfe	er Credit		
Typical Structure of Instructional Hours				,	See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours			⊠ No	∐ Yes		
Tutorials/workshops				outline for (re)articulation		
Supervised laboratory hours			☐ No	Yes (If yes, fill in trar	nsfer credit form.)	
Experiential (field experience, practicum, int	ernship, etc.)	0	Grading	g System		
Supervised online activities			□ Lette	er Grades	Credit	
Other contact hours: regular meetings and s directed learning	student-	60	Maximu	um enrolment (for infor	mation only): 6	
	Total hours	60		ed Frequency of Cours	•	
Labs to be scheduled independent of lecture	hours: 🛛 No	☐ Yes	Every s	emester. ( <i>Every semest</i>	er, Fall only, annually, etc.)	
Department / Program Head or Director: H	eather Davis-F	Fisch		Date approved:	May 2020	
Faculty Council approval				Date approved:	May 19, 2020	
Dean/Associate VP: Jacqueline Nolte				Date approved:	May 19, 2020	
Campus-Wide Consultation (CWC)				Date of posting:	June 26, 2020	

COURSE OUTLINES Page 69 of 112

#### **MEDA 490**

## 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:

- Execute a self-designed plan of study in consultation with a faculty supervisor.
- Complete a course project in a form agreed upon with the instructor (extended paper, creative project).
- Conduct independent research and synthesize a substantial number of sources.
- Apply methods, theories or practices relevant to the project.
- Demonstrate self-reflexivity and intellectual curiosity in relation to course material.
- Communicate persuasively, clearly and professionally, in methods appropriate to context of the course.

Prior Learning	Assessment and	Recognition	(PLAR)
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☐ 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.) Weekly discussions with faculty supervisor.

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

Typical T	ext(s) and Resource M	laterials (If more s	space is require	ed, download Suppleme	ental Texts an	d Resource Materials	s form.)
Auth	or (surname, initials)	Title (article, bo	ok, journal, et	c.)	Current ed	l. Publisher	Year
1. Catm	ull, E.	Creativity Inc.: O Stand in the Way	•	Unseen Forces That ation.		Random House	2014
2. Bach	er, H.	Dream Worlds: F	Production Desi	gn for Animation		Routledge	2007
3. Zwerr	man, S. Okun, J.	The VES Handbe Standard VFX P				Routledge	2010
Typical E	valuation Methods and	d Weighting					
Project 1	1: 25%	Project 2:	30%	Project 2:	45%	Total:	100%
Typical C	f necessary): Course Content and To	•					
visuai ⊑n Week 1	fects and Production I Course outline review	•	evnectations				
vveek i	Project proposal and ASSIGNMENT #1: P	goal setting. roject Plan	•				
Week 2	Artist's statement and Review and revise propertion of the Portfolio goals		of intent.				

Concept development Research methods. Week 5 Work in progress critique.

Week 4

Week 11

Instructional lab time as required.

Concept development Research methods.

Work in progress critique.

Week 6 Presentation and critique. Project review and goal setting.

ASSIGNMENT #3: Project 2 (due week 9)

Week 7 Work in progress critique. Instructional lab time as required.

Week 8 Work in progress critique.

Instructional lab time as required.

Week 9 Presentation and critique. Project review and goal setting.

ASSIGNMENT #3: Project 3 (due week 13)

Week 10 Work in progress critique.

Instructional lab time as required. Work in progress critique.

Instructional lab time as required.

Week 12 Work in progress critique.

Instructional lab time as required.

Week 13 Presentation and final critique.

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	Memo for Course Changes
Го:	
-	m: Norm Taylor, Physics Department Head
	e: November 1, 2019
	oject: Proposal for revision of ENGR 113 (Engineering Physics – Statics & Dynamics)
	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
	<ul><li>☑ Learning outcomes</li><li>☑ Delivery methods and/or texts and resource materials</li></ul>
	□ PLAR options, grading system, and/or evaluation methods
	☐ Discontinuation of course
	☐ Other – Please specify:
·.	Rationale for change:
	All of the post-secondary institutions in BC – coordinated by the provincial Engineering
	articulation committee - are making a major push to have a Common Core for all of the first-
	year engineering programs in order to facilitate transfer.
3.	If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):
	<ul> <li>The learning outcomes are prescribed by the content and direction of the provincial Common Core.</li> </ul>
ŀ.	Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?
	• UFV's Engineering – Mechatronics diploma program committee has approved the changes.
5.	Which program areas have been consulted about the change(s)?
	The provincial Articulation committee
5.	What consideration has been given to indigenizing the curriculum?
	• The department attempts to incorporate questions in physics relevant to the lives of indigenous students, insofar as this is compatible with the Common Core.
,	If this course is not eligible for PLAR, explain why:

COURSE OUTLINES Page 71 of 112

- 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

0

b. Class size limit

0

c. Frequency of offering

С

d. Resources required (labs, equipment)

С

- 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:
  - \$400 for two textbooks, but one of them was used in a prerequisite, PHYS 111.

## **CWC** comments and responses:

 Learning outcomes: "accurately" and "properly" refer to assessment rather than outcome, and should be removed.

In an Engineering context, both words have significant legal meaning.

UEC may have concerns with learning outcome #6, as it is a method of assessment. Suggest
deleting or revising.

Team project work is listed in the provincial documents as a learning outcome. Specifically, things like "Understand group dynamics theory (e.g., Tuckman model)", "give/receive feedback effectively", etc. – I could put those in.

COURSE OUTLINES Page 72 of 112



ORIGINAL COURSE IMPLEMENTATION DATE: September 1999
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Full Title: Engineering Physics - Statics and Dynamics  Cranscripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)  Faculty: Applied and Technical Studies  Calendar Description:  Emphasizes solution techniques and proper documentation for problems involving practical applications of Newton's laws to engineering situations.  Prerequisites (or NONE):  MATH 111 and PHYS 111.  Corequisites (if applicable, or NONE):  NONE  Prefcorequisites (if applicable, or NONE):  NONE  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: PHYS 113  Cross-listed with:  Dual-listed with:  Equivalent course(s):  Independent Study  Independent Study	Course Code and Number: ENGR 113	N	Number of Cre	Credits: 4 Course credit policy (105)				
Calenty: Applied and Technical Studies   Department (or program if no department): Physics	3 3 3	Course Full Title: Engineering Physics - Statics and Dynamics						
Paculty: Applied and Technical Studies	· · · · · · · · · · · · · · · · · · ·							
Calendar Description: Emphasizes solution techniques and proper documentation for problems involving practical applications of Newton's laws to engineering situations.  Prerequisites (or NONE):  MATH 111 and PHYS 111.  Corequisites (if applicable, or NONE):  Pre/corequisites (if applicable, or NONE):  NONE  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: PHYS 113 Cross-listed with: Dual-listed with: Dual-listed with: 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Lecture/seminar hours  Lexperiential (field experience, practicum, internship, etc.)  Supervised alboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Peaculty Council approval  Date approved:  November 2019  Date of posting:  Prerequisites (or NONE):  MATH 111 and PHYS 111.  MATH 111 and PHYS 111.  Department (or NONE):  NONE  Special Topics (Double-click on boxes to select.)  This course is offered with different topics:  No   Yes (If yes, topic will be recorded when offered.)  Independent Study  If offered as an Independent Study  Former credit (If yes, topic will be recorded.)  Independent Study  If offered as an Independent Study course, this course of the proving the prevented for further credit.  Transfer Credit  Transfer Credit  Transfer credit  Transfer credit  Transfer credit  Transfer credit information only): 36  Experiential (field experience, practicum, internship, etc.)  Grading System  Submit outline for (re)articulation:  No   Yes (If yes, topic will be recorded.)  No   Yes (If yes, fopic will be	(Transcripts only display 30 characters. Depa	artments may i	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)		
Emphasizes solution techniques and proper documentation for problems involving practical applications of Newton's laws to engineering situations.  Prerequisites (or NONE):  MATH 111 and PHYS 111.  Corequisites (if applicable, or NONE):  Pre/corequisites (if applicable, or NONE):  NONE  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: PHYS 113 Cross-listed with:  Dual-listed with:  Equivalent course(s): (If offered in the previous five years, antirequisite course(s) will be included in the previous five years, antirequisite courses for further credit.)  Typical Structure of Instructional Hours  Typical Structure of Instructional Hours  Lecture/seminar hours  Lecture/seminar hours  Supervised laboratory hours  Experiential (field experience, practicum, intermship, etc.)  Supervised online activities  Other contact hours:  Total hours  Pepatrment / Program Head or Director: Norm Taylor  Department / Program Head or Director: Norm Taylor  Date approved: November 2019  Date approved: November 2019  Date of posting: February 21, 2021	Faculty: Applied and Technical Studies		Department (o	r prograi	m if no department): Ph	ysics		
Prerequisites (or NONE): MATH 111 and PHYS 111.  Corequisites (if applicable, or NONE): NONE  Pre/corequisites (if applicable, or NONE): NONE  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: PHYS 113 Cross-listed with: Dual-listed with:  Equivalent course(s): (If offered in the previous five years, antirequisite course(s) will be repeated for further credit.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded when offered.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.) Independent Study If offered as an Independent Study cou	Calendar Description:							
Corequisites (if applicable, or NONE):   NONE		documentatior	n for problems	involving	practical applications of I	Newton's laws to		
Pre/corequisites (if applicable, or NONE): NONE  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: PHYS 113 Cross-listed with: Dual-listed with: 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.  Typical Structure of Instructional Hours  Lecture/seminar hours  Lecture/seminar hours  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Cross-listed with different topics:  Special Topics (Double-click on boxes to select.)  This course is offered with different topics:  No	Prerequisites (or NONE):	MATH 111 a	and PHYS 111					
Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: PHYS 113 Cross-listed with: Dual-listed with: 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours Tutorials/workshops Supervised laboratory hours Experiential (field experience, practicum, internship, etc.) Supervised online activities Other contact hours:  Total hours Department / Program Head or Director: Norm Taylor  Paculty Council approval  Campus-Wide Consultation (CWC)  Special Topics (Double-click on boxes to select.) This course is offered with different topics:  No	Corequisites (if applicable, or NONE):	NONE						
Former course code/number: PHYS 113 Cross-listed with: Dual-listed with: 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Lecture/seminar hours  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Depart/Associate VP: John English  Campus-Wide Consultation (CWC)  Tid fered as an Independent Study course, this course may be repeated for further credit. (If yes, topic will be recorded.)  Independent Study If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  No	Pre/corequisites (if applicable, or NONE):	NONE						
Cross-listed with: Dual-listed with: 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.  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Independent Study  If offered as an Independent Study course, this course may be repeated for further credit:  Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  No	Antirequisite Courses (Cannot be taken for	additional cre	dit.)	Specia	Topics (Double-click or	n boxes to select.)		
Dual-listed with: 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.  Typical Structure of Instructional Hours  Lecture/seminar hours  Lucture/seminar hours  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Campus-Wide Consultation (CWC)  Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study  If offered as an I	Former course code/number: PHYS 113			This co	This course is offered with different topics:			
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.  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  DepartMent / Program Head or Director: Norm Taylor  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study course it formuther credit: (If yes, topic will be recorded.)  If offered as an Independent Study course it formuther credit: (If yes, topic will be recorded.)  If offered as an Independent Study course it formuther credit.  If offered as an Independent Study course it formuther credit.  If offered as an Independent Study course it formuther credit.  Transfer Credit  Transfer Cre	Cross-listed with:							
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included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Transfer Credit  Transfer Credit  Transfer credit already exists: (See bctransferquide.ca.)  Totals vists: (See bctransferquide.ca.)  No	Equivalent course(s):			If offere	If offered as an Independent Study course, this course may			
Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Transfer Credit  Transfer credit already exists: (See bctransferguide.ca.)  Transfer Credit  Transfer Credit  Transfer Credit  Transfer credit already exists: (See bctransferguide.ca.)  No  Yes  Submit outline for (re)articulation:  No  Yes (If yes, fill in transfer credit form.)  Grading System  Letter Grades								
Transfer Credit Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Transfer Credit  Transfer Credit Transfer credit already exists: (See bctransferguide.ca.)  Transfer Credit already exists: (See bctransferguide.ca.) Submit outline for (re)articulation: No				No ☐ Yes, repeat(s) ☐ Yes, no limit				
Lecture/seminar hours       45         Tutorials/workshops       45         Supervised laboratory hours       Submit outline for (re)articulation:	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,	Transfer Credit				
Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Labs to be scheduled independent of lecture hours: No Yes  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Submit outline for (re)articulation:  No Yes (If yes, fill in transfer credit form.)  Grading System  Letter Grades Credit/No Credit  Maximum enrolment (for information only): 36  Expected Frequency of Course Offerings:  Annually (Every semester, Fall only, annually, etc.)  Date approved: October 2019  Date approved: November 2019  Date of posting: February 21, 2021	Typical Structure of Instructional Hours			,				
Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Dean / Supervised laboratory hours    No   Yes (If yes, fill in transfer credit form.)   Grading System     Letter Grades   Credit/No Credit     Maximum enrolment (for information only): 36     Expected Frequency of Course Offerings:     Annually (Every semester, Fall only, annually, etc.)     Date approved:   November 2019     Date of posting:   February 21, 2021	Lecture/seminar hours		45					
Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours 90  Labs to be scheduled independent of lecture hours: No Yes  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Dean (Grading System  Letter Grades Credit/No Credit  Maximum enrolment (for information only): 36  Expected Frequency of Course Offerings:  Annually (Every semester, Fall only, annually, etc.)  Date approved: October 2019  Date approved: November 2019  Date of posting: February 21, 2021	Tutorials/workshops		45	Submit outline for (re)articulation:				
Supervised online activities  Other contact hours:  Labs to be scheduled independent of lecture hours: Norm Taylor  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Letter Grades Credit/No Credit  Maximum enrolment (for information only): 36  Expected Frequency of Course Offerings:  Annually (Every semester, Fall only, annually, etc.)  Date approved: October 2019  Date approved: November 2019  Date of posting: February 21, 2021	Supervised laboratory hours			☐ No ☑ Yes (If yes, fill in transfer credit form.)				
Other contact hours:  Total hours 90  Labs to be scheduled independent of lecture hours: Norm Taylor  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Maximum enrolment (for information only): 36  Expected Frequency of Course Offerings:  Annually (Every semester, Fall only, annually, etc.)  Date approved: October 2019  Date approved: November 2019  Date of posting: February 21, 2021	Experiential (field experience, practicum, int	ternship, etc.)		Grading System				
Total hours 90  Labs to be scheduled independent of lecture hours: Norm Taylor Norm Taylor Date approved: November 2019  Faculty Council approval Dean/Associate VP: John English Date of posting: February 21, 2021  Maximum enrolment (for information only): 36  Expected Frequency of Course Offerings: Annually (Every semester, Fall only, annually, etc.)  Date approved: November 2019  Date of posting: February 21, 2021	Supervised online activities			□ Letter Grades □ Credit/No Credit				
Labs to be scheduled independent of lecture hours: No Yes Annually (Every semester, Fall only, annually, etc.)  Department / Program Head or Director: Norm Taylor  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Expected Frequency of Course Offerings: Annually (Every semester, Fall only, annually, etc.)  Date approved: October 2019  Date approved: November 2019  Date of posting: February 21, 2021	Other contact hours:			Maximi	ım enrolment (for infor	mation only): 36		
Department / Program Head or Director: Norm Taylor       Date approved:       October 2019         Faculty Council approval       Date approved:       November 2019         Dean/Associate VP: John English       Date approved:       November 2019         Campus-Wide Consultation (CWC)       Date of posting:       February 21, 2021		Total hours	90		•	,,		
Faculty Council approval  Dean/Associate VP: John English  Date approved:  November 2019  Date approved:  November 2019  Campus-Wide Consultation (CWC)  Date of posting:  February 21, 2021	Labs to be scheduled independent of lecture	hours: 🗌 No	Yes	Annuall	y (Every semester, Fall o	only, annually, etc.)		
Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Date of posting:  February 21, 2021	Department / Program Head or Director: Norm Taylor				Date approved:	October 2019		
Campus-Wide Consultation (CWC)  Date of posting: February 21, 2021	Faculty Council approval				Date approved:	November 2019		
	Dean/Associate VP: John English				Date approved:	November 2019		
	Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2021		
Undergraduate Education Committee (UEC) approval Date of meeting: October 2, 2020	Undergraduate Education Committee (UEC) approval				Date of meeting:	October 2, 2020		

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#### **ENGR 113**

# 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:

- Accurately make free body diagrams for single objects and structures
- Use Newton's Laws to model and analyze practical situations in statics and dynamics
- Properly choose from multiple co-ordinate systems to simplify the analysis
- Use kinematics, energy, momentum or thermodynamics as appropriate for the solution of a situation
- Properly document a solution in the standard format for engineering/industrial applications
- Participate in the design and construction of group projects and subsequent presentation of the results.

The learning outcomes are defined by the requirements for the Phys III component of the "First-Year Common Engineering Curriculum for the BC Post-Secondary Sector" which state the required course content, which is listed below in the Course Content section.

# Prior Learning Assessment and Recognition (PLAR)

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

The course will be presented using lectures, tutorials, and a project. Approximately seven problems per week will be handed in and marked. During the tutorial the marked assignments will be discussed, additional problems in the same general area will be dealt with, and help will be given for those needing it for the next assignment set. There will be a close coordination between the lecture topics and the tutorials. The project will be a spaghetti bridge competition (or something similar) based on the structural chapter covered.

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

Тур	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.	Hibbeler, R.C.	Engineering Mechanics (Statics and Dynamics), 14 <sup>th</sup> ed.	$\boxtimes$	Pearson	2015					
2.	Beer, F.; Johnston, E.R.; Mazurek D.; Cornwell, P.	Vector Mechanics for Engineers, S. I. Metric Ed.	$\boxtimes$	McGraw Hill	2015					
3.	Young and Freedman	University Physics, 15th ed.	$\boxtimes$	Pearson	2019					
4.										

Required Additional Supplies and Materials (Software, hardware, tools, specialized clothing, etc.) Engineering Grade Paper and simple drawing instruments.

#### **Typical Evaluation Methods and Weighting**

Final exam:	40%	Assignments:	15%	Field experience:	%	Portfolio:	%
Midterm exam:	25%	Project:	10%	Practicum:	%	Other:	%
Quizzes/tests:	10%	Lab work:	%	Shop work:	%	Total:	100%

#### Details (if necessary):

#### **Typical Course Content and Topics**

. , p		
Lectures/tutorial (each 3 hours)	Topic	Chapters
2	Introduction to mechanics, fundamental concepts and principles, systems of units, solution	Hibb Ch1 1.1-1.6
	methods and numerical accuracy. Vectors.	Hibb Ch2 2.1-2.9
1	Newton's laws, forces as vectors, free body diagrams and Equilibrium.	Hibb Ch3 3.1-3.4
3	Rigid body equilibrium, torques as vector cross products, equivalent forces and couples.  Loadings and distributed forces	Hibb Ch4 4.1-4.10
2	Rigid body equilibrium in two and three dimensions	Hibb Ch5 5.1-5.7
2	Analysis of structures (trusses and frames).	Hibb Ch6 6.1-6.6
1	Internal Forces	Hibb Ch7 7.1-7.3
1	Friction-wedges, square threaded screws, journal bearings, thrust bearings, and belt friction	Hibb Ch8 8.1-8.4
1	Midterm	
3	Particle kinematics – rectilinear and curvilinear motion (radial and tangential components)	Hibb Ch12 12.1-12.9
2	Newton's second law on dynamic systems	Hibb Ch13 13.1 13.6
1	Project-Spaghetti Bridge	
Y&F Ch 17, 18	Introduction to Thermodynamics	Y&F Ch 15 15.1-15.9
17.1-17.9, 18-1-	•	
18.7		
2	Heat Capacity; Kinetic Theory	Y&F Ch 16 16.1-16.7
2+	Thermodynamic Laws; Heat Engines	

COURSE OUTLINES Page 74 of 112

	Memo for Course Changes					
Го:	UEC UEC					
From:	Norm Taylor, Physics Department Head					
Date:	August 25, 2019					
	t: Proposal for revision of PHYS 111 (Mechanics)					
-						
	mmary of changes (select all that apply): Six-year review					
	Number and/or course code					
	Credits and/or total hours					
	Title					
$\boxtimes$	Calendar description					
	Prerequisites and/or co-requisites					
$\boxtimes$	Frequency of course offering					
$\boxtimes$	Learning outcomes					
$\boxtimes$	Delivery methods and/or texts and resource materials					
	PLAR options, grading system, and/or evaluation methods					
	Discontinuation of course					
	Other – Please specify:					
2. Ra <sup>.</sup>	tionale for change:					
	The most important change has to do with prerequisites. UUP has altered their Math					
	offerings and course numbers, and this OCO reflects those updates.					
	The learning outcomes now more closely reflect what is achieved in this course.					
3. If t	here are substantial changes to the learning outcomes, explain how they align with the learning					
	tcomes of the program(s):					
	No substantial changes are made to what is actually done, but the phrasing makes it clear					
	how scientific skills and knowledge are obtained and analyzed, and how this information is					
	communicated.					
4. Is t	this course required by any program beyond the discipline? If so, how will this change affect that					
pro	ogram or programs?					
	Yes, the Engineering Transfer Program. Changes are not significant.					
5. Wł	hich program areas have been consulted about the change(s)?					
	College of Arts Curriculum Committee (to see if it fulfills their scientific literacy					
	requirement).					
	ETP (Peter Mulhern)					

COURSE OUTLINES Page 75 of 112

- The department attempts to incorporate questions in physics relevant to the lives of indigenous students.
- 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
    - No changes
  - b. Class size limit
    - o No changes
  - c. Frequency of offering
    - No changes
  - d. Resources required (labs, equipment)
    - Physics labs
- 9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
  - No
- 10. Estimate of the typical costs for this course, including textbooks and other materials:
  - Textbook cost is about \$150, but the same text is also used in PHYS 112. Scientific calculators are required. (TI-8x series graphing calculator preferred.) Calculator cost is about \$150, but is used in other courses such as MATH 111/112.

# CWC comments and responses:

- Has the department considered changing MATH 111 from "highly recommended" to a required pre/corequisite?
  - MATH 111 should remain as a recommendation. We believe the Note in the Calendar description is sufficient.
- The use of "prerequisites for MATH 111" rather than specific Math courses may be problematic. Although there are a few other courses with similar prereqs (i.e. that refer to the prereqs for a different course), there are two concerns. First, it means that both students and the staff responsible for coding the prereqs have an additional step to look up what is required. Second, if the MATH 111 prereqs change, there is no trigger to update the coded prereqs for PHYS 111, so they may become outdated without anyone realizing.
  - That is the entire point of saying "prerequisites for Math 111". Because Math is continually chopping and changing them, we didn't want to have to keep adjusting ours just a waste of time and effort, frequently dragging updates through the process. Besides, previous iterations of UEC thought this was a GREAT idea.

COURSE OUTLINES Page 76 of 112



ORIGINAL COURSE IMPLEMENTATION DATE: September 1993
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: PHYS 111	N	lumber of Cr	edits: 5 C	ourse credit policy (105	1	
Course Full Title: Mechanics						
Course Short Title:						
(Transcripts only display 30 characters. Depa	artments may r	recommend a	short title	if one is needed. If left b	olank, one will be assigned.)	
Faculty: Faculty of Applied and Technical St	udies <b>D</b>	Department (d	r prograr	n if no department): P	hysics	
Calendar Description:						
Intended for students who are planning to studynamics, work and energy, collisions, rotatic is to understand the fundamental laws of med feeling for the order of magnitude of physical	onal kinematics chanics, to lead quantities and	s, rotational dy rn how to app I uncertainties	namics, s y the thec in real ex	imple harmonic motion, bry to solve related prob periments.	and gravitation. The object	
Note: Students with credit for this course can	not take PHYS	§ 100 or PHY	S 101 for f	urther credit.		
Note: MATH 112 or MATH 118 are corequisi students with an A in PHYS 111.	tes for PHYS	112, although	the Physi	cs department will waive	e this requirement for	
Prerequisites (or NONE):  One of: Physics 12, PHYS of 12, MATH 095, or MATH 11 As of September 2021, pred PHYS 093, or (prerequisites PHYS 100).			110] and o	ne of [Physics 11, PHY s will change to one of the	S 083, or PHYS 100]). Note: ne following: Physics 12,	
Pre/corequisites (if applicable, or NONE):	MATH 111 is	s highly recom	mended.			
Antirequisite Courses (Cannot be taken for	additional cre	dit.)	Special	Topics (Double-click o	n boxes to select.)	
Former course code/number:			This course is offered with different topics:  ☑ No ☐ Yes (If yes, topic will be recorded when offered.)  Independent Study  If offered as an Independent Study course, this course may			
Cross-listed with:						
Dual-listed with:						
Equivalent course(s): PHYS 100, PHSY 101						
(If offered in the previous five years, antirequincluded in the calendar description as a note			be repeated for further credit: (If yes, topic will be recorded.			
for the antirequisite course(s) cannot take this			⊠ No	☐ Yes, repeat(s	s) Tes, no limit	
, , ,		,	Transfe	er Credit		
Typical Structure of Instructional Hours			Transfe	r credit already exists: (	See <u>bctransferguide.ca</u> .)	
Lecture/seminar hours		75	□ No ☑ Yes			
Tutorials/workshops			Submit outline for (re)articulation:  ☐ No ☐ Yes (If yes, fill in transfer credit form.)			
Supervised laboratory hours		30				
Experiential (field experience, practicum, int	ternship, etc.)		Grading	g System		
Supervised online activities			□ Lette	er Grades 🔲 Credit/N	o Credit	
Other contact hours:			Maximu	ım enrolment (for info	rmation only): 36	
	Total hours	105		ed Frequency of Cours	-,	
Labs to be scheduled independent of lecture	hours: No	⊠ Yes			er, Fall only, annually, etc.)	
Department / Program Head or Director: N	orm Taylor		•	Date approved:	June 1, 2019	
	Faculty Council approval			Date approved:	November 1, 2019	
Faculty Council approval						
Faculty Council approval  Dean/Associate VP: John English				Date approved:	November 1, 2019	
				Date approved:  Date of posting:	November 1, 2019 February 21, 2020	

COURSE OUTLINES Page 77 of 112

#### 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:

- Solve problems involving forces, accelerations, and linear momentum by applying the fundamental laws of Newtonian mechanics.
- 2. Perform fundamental laboratory experiments in simple mechanics, interpret the data obtained, and report the results.
- 3. Estimate the order of magnitude of physical quantities in simple mechanics experiments using basic instrumentation.
- 4. Develop their ability to discern different types of uncertainties in data, and use these numbers to calculate the uncertainties in values in mechanics experiments.
- 5. Use vectors in conjunction with calculus to solve problems in mechanics.
- 6. Solve kinematic and dynamic problems with rotational motion, calculating moments of inertia from the definition and using the parallel axis theorem.
- 7. Calculate the vector gravitational force and potential energy from several point masses and spheres.
- 8. Apply conservation of energy and angular momentum to elliptical orbits and Newton's Second law to circular motion.
- 9. Calculate escape velocities from, and time periods of, circular orbits.

Prior Learning	Assessment and	Recognition	(PLAR

oximes Yes oximes 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 be presented using lectures and laboratory experiments. Audio-visual aids will be used where appropriate. Problems will be assigned on a regular basis, which are to be handed in and marked. Problems that require the use of calculus will be emphasized. Close coordination will be maintained between laboratory and classroom work. Computer-assisted learning programs may be used to increase the understanding of the concepts being studied.

#### 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.	Young and Freedman	University Physics 15 <sup>th</sup> edition	$\boxtimes$	Pearson	2019
2.	R. Hawkes et al.	Physics for Scientists and Engineers.	$\boxtimes$	Nelson	2019
3.	Halliday/Resnick/Walker	Fundamentals of Physics	$\boxtimes$	Wiley and Sons	
4.		Any first-year physics book that uses calculus and vectors			
5.					

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

## **Typical Evaluation Methods and Weighting**

Final exam:	40%	Assignments:	10%	Field experience:	%	Portfolio:	%
Midterm exam:	25%	Project:	%	Practicum:	%	Other:	%
Quizzes/tests:	10%	Lab work:	15%	Shop work:	%	Total:	100%

Details (if necessary): Weighting of quiz vs Assignments will vary by instructor

#### **Typical Course Content and Topics**

- Introduction to course: relationship of lecture, tutorials, and laboratories; units and dimensional analysis
- · Vectors: vector and scalar quantities, addition, resultant of several vectors, unit vector, dot and cross product
- Kinematics of a particle: speed and velocity, relative velocity, average velocity, acceleration, rectilinear motion with constant acceleration, projectiles
- Dynamics of a particle: Newton's laws of motion and applications, friction and motion on an incline
- Momentum: definition, linear momentum, conservation of momentum, impulse
- Work, energy, and power: work, kinetic energy, gravitational potential energy, elastic potential energy, equivalence of mass and energy, power
- Conservation of energy: collisions, types of collisions, conservation of total energy, mechanical energy
- Rotational kinematics: angular quantities, angular speed and velocity, angular acceleration, tangential quantities, radial acceleration, centripetal force
- Rotational dynamics: kinematics of pure rotation, centre of mass, torque and rotational inertia, angular momentum, conservation of angular momentum
- Gravitation: law of gravitation, gravitational force and weight, satellite motion, Kepler's laws
- Periodic motion: Hooke's law, simple harmonic motion, period, displacement, velocity and acceleration for SHM.

COURSE OUTLINES Page 78 of 112

	Memo for Course Changes						
То:	UEC						
From:	Norm Taylor, Physics Department Head						
Date:	August 25, 2019						
Subject: Proposal for revision of PHYS 221 (Intermediate Mechanics)							
L. Su	immary of changes (select all that apply):						
$\boxtimes$	Six-year review						
	Number and/or course code						
$\boxtimes$	Credits and/or total hours						
	Title						
$\boxtimes$	Calendar description						
	Prerequisites and/or co-requisites						
	, ,						
$\boxtimes$	Learning outcomes						
	Delivery methods and/or texts and resource materials						
	PLAR options, grading system, and/or evaluation methods  Discontinuation of course						
	Other – Please specify:						
	Other - Flease specify.						
2. Ra	itionale for change:						
	• This is a 6 year review, where we have updated the calendar description and learning						
	outcomes to adhere to the new standards. In addition, we have updated the evaluation						
	methods to reflect the way the course is currently being taught. Textbook was also updated to the most recent version.						
3 If	there are substantial changes to the learning outcomes, explain how they align with the learning						
	itcomes of the program(s):						
	• The learning outcomes have been updated to more clearly align with those of the program.						
	Although the language has been updated to reflect current standards, the actual goals of the						
	course remain intact.						
4. Is	this course required by any program beyond the discipline? If so, how will this change affect that						
pr	ogram or programs?						
	• This course is only required for Physics and Engineering programs, and the changes will not affect them.						
5. W	hich program areas have been consulted about the change(s)?						
	• N/A						
6. W	hat consideration has been given to indigenizing the curriculum?						
	The department attempts to incorporate questions in physics relevant to the lives of						
	indigenous students.						

COURSE OUTLINES Page 79 of 112

- 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
    - No change
  - b. Class size limit
    - o No change
  - c. Frequency of offering
    - o No change
  - d. Resources required (labs, equipment)
    - o No change
- 7. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
  - N/A
- 8. Estimate of the typical costs for this course, including textbooks and other materials:
  - Depending on where the textbook is purchased, the expected cost for the book and supplies should be less than \$100.

COURSE OUTLINES Page 80 of 112



ORIGINAL COURSE IMPLEMENTATION DATE: June 1993
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Full Title: Intermediate Mechanics Course Short Title: (Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)  Faculty: Faculty of Applied and Technical Studies  Department (or program if no department): Physics  Calendar Description:  This intermediate mechanics course covers polar co-ordinates, orbits, dynamics of solid bodies, driven damped oscillators, and coupled oscillators.  Prerequisites (or NONE):  (PHYS 111 and PHYS 112) or (PHYS 101 and PHYS 105 with a B+ or higher in each).  Corequisites (if applicable, or NONE):  Prefcorequisites (if applicable, or NONE):  MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number:  Cross-listed with:  Dual-listed with:  Dual-listed with:  Supervised courses(s): (if offered in the previous five years, antirequisite course (s); (if offered in the celendar description as a note that students with readit for the antirequisite courses(s) cannot take this course for further credit.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Total hours  Total hours:  Total hours  Total hours  Total hours:  Total hours:  Department / Program Head or Director: Norm Taylor  Date approved:  Department / Program Head or Director: Norm Taylor  Date approved:  November 1, 2019  Date approved:  Pate of meeting:  Precquisites (if applicable, or NONE):  Reperience Short in the previous five years, orbital, dynamics of solid bodies, driven department; Physics  Department / Program Head or Director: Norm Taylor  Date approved:  November 1, 2019  Date of provide:  Pate of meeting:  Precquisites (if applicable, or NONE):  Reperiential (field experience, practicum, internship, etc.)  Date of provide:  Provided P	Course Code and Number: PHYS 221	ı	Number of Cro	redits: 4 Course credit policy (105)			
Cranscripts only display 30 characters. Departments							
Faculty: Faculty of Applied and Technical Studies  Calendar Description: This intermediate mechanics course covers polar co-ordinates, orbits, dynamics of solid bodies, driven damped oscillators, and coupled oscillators.  Perequisites (or NONE):  (PHYS 111 and PHYS 112) or (PHYS 101 and PHYS 105 with a B+ or higher in each).  Corequisites (if applicable, or NONE):  Pre/corequisites (if applicable, or NONE):  MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with: Dual-listed with:  Equivalent course(s): (if offered in the previous five years, antirequisite courses (s) (if offered in the previous five years, antirequisite course for further credit.)  Independent Study Independent Study course, this course may be repeated for further credit. (if yes, topic will be recorded when offered.)  Independent Study course, this course may be repeated for further credit. (if yes, topic will be recorded).  No   Yes, repeat(s)   Yes, no limit  Transfer Credit  Transfer Credit  Transfer Credit already exists: (See bctransferguide.ca.)   No   Yes, will yes, fill in transfer credit form.)							
Calendar Description: This intermediate mechanics course covers polar co-ordinates, orbits, dynamics of solid bodies, driven damped oscillators, and coupled oscillators.  Prerequisites (or NONE):  (PHYS 111 and PHYS 112) or (PHYS 101 and PHYS 105 with a B+ or higher in each).  Corequisites (if applicable, or NONE):  Pre/corequisites (if applicable, or NONE):  MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with:  Dual-listed with:  Dual-listed with:  Quives (s) will be included 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Typical Structure of Instructional Hours  Experiential (field experience, practicum, internship, etc.)  Supenvised laboratory hours  Supenvised online activities  Other contact hours:  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Carbon Supervised:  Date of posting: February 21, 2020	(Transcripts only display 30 characters. Depa	artments may	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
This intermediate mechanics course covers polar co-ordinates, orbits, dynamics of solid bodies, driven damped oscillators, and coupled oscillators.    Prerequisites (or NONE):	Faculty: Faculty of Applied and Technical St	udies [	Department (c	r prograi	n if no department): Ph	nysics	
Prerequisites (or NONE): (PHYS 111 and PHYS 112) or (PHYS 101 and PHYS 105 with a B+ or higher in each).  Corequisites (if applicable, or NONE): MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: This course is offered with different topics: □ No □ Yes (if yes, topic will be recorded when offered.) Independent Study (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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Supervised laboratory hours  Supervised laboratory hours  Supervised online activities  Other contact hours: □ No □ Yes  Labs to be scheduled independent of lecture hours: □ No □ Yes  Department / Program Head or Director: Norm Taylor  Date approved: November 1, 2019  Date approved: November 1, 2019  Date approved: November 1, 2019	Calendar Description:						
Corequisites (if applicable, or NONE):  Pre/corequisites (if applicable, or NONE):  MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with: Dual-listed with: 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) course for further credit.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Supervised alboratory hours  Supervised online activities  Other contact hours:  Other contact hours:  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  MATH 211.  Special Topics (Double-click on boxes to select.) This course is offered with different topics:  No   Yes (If yes, topic will be recorded when offered.)  Independent Study  Independent Study  Independent Study  Foerial Topics (Double-click on boxes to select.) This course is offered with different topics:  No   Yes (If yes, topic will be recorded when offered.)  Independent Study  Independent St		olar co-ordina	ates, orbits, dy	namics of	solid bodies, driven dam	nped oscillators, and coupled	
Corequisites (if applicable, or NONE):  Pre/corequisites (if applicable, or NONE):  MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with: Dual-listed with: 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) course for further credit.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Supervised alboratory hours  Supervised online activities  Other contact hours:  Other contact hours:  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  MATH 211.  Special Topics (Double-click on boxes to select.) This course is offered with different topics:  No   Yes (If yes, topic will be recorded when offered.)  Independent Study  Independent Study  Independent Study  Foerial Topics (Double-click on boxes to select.) This course is offered with different topics:  No   Yes (If yes, topic will be recorded when offered.)  Independent Study  Independent St	Proposition (as NONE)	(DLIVO 444		2) (DLI)	(0.404   DIIVO.405	ith a December in a sub-	
Pre/corequisites (if applicable, or NONE): MATH 211.  Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with: Dual-listed with: 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours Tutorials/workshops Supervised laboratory hours Experiential (field experience, practicum, internship, etc.) Supervised online activities Other contact hours: Total hours  Labs to be scheduled independent of lecture hours: □ No ☑ Yes  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  MATH 211.  Special Topics (Double-click on boxes to select.) This course is offered with different topics: □ No □ Yes (If yes, topic will be recorded when offered.)  Independent Study Independent Study Course (If yes, topic will be recorded when offered.)  Independent Study Independent Study Course (If yes, topic will be recorded when offered.)  Independent Study Independent Study Course (If yes, topic will be recorded when offered.)  Independent Study Independent Study Independent Study Course (If yes, topic will be recorded when offered.)  Independent Study Independent Study Independent Study Independent Study Course (If yes, topic will be recorded when offered.)  Independent Study Independent Study Independent Study Independent Study Independent Study Curse (If yes, topic will be recorded when offered.)  Independent Study Independent Stud	. , ,	(PHYS 111	and PHYS 112	2) or (PHY	5 101 and PHYS 105 W	ith a B+ or nigher in each).	
Antirequisite Courses (Cannot be taken for additional credit.) Former course code/number: Cross-listed with: Dual-listed with: 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours Tutorials/workshops Supervised laboratory hours Supervised online activities Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Cross-listed with: Special Topics (Double-click on boxes to select.) This course is offered with different topics:  No	Corequisites (if applicable, or NONE):						
Former course code/number:  Cross-listed with:  Dual-listed with:  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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Tansfer Credit  Transfer Credit already exists: (See bctransferquide.ca.)  Grading System  Supervised Jeboratory hours  Experiential (field experience, practicum, internship, etc.)  Department / Program Head or Director: Norm Taylor  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  This course is offered with different topics:  No Yes (If yes, topic will be recorded when offered.)  Independent Study  If offered as an Independent Study  If offered as an Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  No Yes, repeat(s) Yes, no limit  Transfer Credit  Transfer credit already exists: (See bctransferquide.ca.)  No Yes  Submit outline for (re)articulation:  Maximum enrolment (for information only): 24  Expected Frequency of Course Offerings: Annually  Annually (Every semester, Fall only, annually, etc.)  Date approved: November 1, 2019  Date approved: November 1, 2019	Pre/corequisites (if applicable, or NONE):	MATH 211.					
Cross-listed with: Dual-listed with: 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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Department / Program Head or Director: Norm Taylor  Taculy Council approval  Dean/Associate VP: John English  Cimplement Study  Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded when offered.)  Independent Study  If offered as an Independent Study  Indep	Antirequisite Courses (Cannot be taken for	additional cre	edit.)	Specia	Topics (Double-click of	n boxes to select.)	
Dual-listed with:  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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Teacilty Council approval  Dean/Associate VP: John English  Tindependent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  If offered as an Independent Study  Ind	Former course code/number:			This co	This course is offered with different topics:		
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.)  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Other contact hours:  Total hours  Department / Program Head or Director: Norm Taylor  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  For further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded.)  In offered as an Independent Study course, this course may be repeated for further credit. (If yes, topic will be recorded.)  In offered as an Independent Study course, the subject of further credit. (If yes, topic will be recorded.)  Transfer credit  Transfer credit  Transfer credit already exists: (See betransferguide.ca.)  In offered as an Independent Study course, the subject of further credit.	Cross-listed with:			⊠ No	No ☐ Yes (If yes, topic will be recorded when offered.)		
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.  Typical Structure of Instructional Hours  Lecture/seminar hours  Tutorials/workshops  Supervised laboratory hours  Supervised online activities  Other contact hours:  Total hours  Labs to be scheduled independent of lecture hours: □ No ☑ Yes  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Typical Structure of Instructional Hours  Transfer Credit  Transfer Credit already exists: (See bctransferquide.ca.)  Transfer Credit  Transfer Credit already exists: (See bctransferquide.ca.)  Transfer Credit  Transfer Credit already exists: (See bctransferquide.ca.)  No ☑ Yes  Submit outline for (re)articulation: □ No ☑ Yes (If yes, fill in transfer credit form.)  Grading System ☑ Letter Grades □ Credit/No Credit  Maximum enrolment (for information only): 24  Expected Frequency of Course Offerings: Annually  Annually (Every semester, Fall only, annually, etc.)  Date approved: September 1, 2019  Date approved: November 1, 2019  Date of posting: February 21, 2020				Indepe	Independent Study		
Typical Structure of Instructional Hours    Lecture/seminar hours   75     Tutorials/workshops	course(s) will be included in the calendar des students with credit for the antirequisite cours	cription as a r	n as a note that		be repeated for further credit: (If yes, topic will be recorded.)		
Lecture/seminar hours       75         Tutorials/workshops       Supervised laboratory hours       30         Experiential (field experience, practicum, internship, etc.)       Supervised online activities         Other contact hours:       Waximum enrolment (for information only): 24         Expected Frequency of Course Offerings: Annually         Annually (Every semester, Fall only, annually, etc.)         Department / Program Head or Director: Norm Taylor       Date approved:       November 1, 2019         Faculty Council approval       Date approved:       November 1, 2019         Dean/Associate VP: John English       Date of posting:       February 21, 2020				Transfer Credit			
Tutorials/workshops Supervised laboratory hours Supervised online activities Other contact hours:  Labs to be scheduled independent of lecture hours: No Yes  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Submit outline for (re)articulation: No Yes (If yes, fill in transfer credit form.)  Submit outline for (re)articulation: No Yes (If yes, fill in transfer credit form.)  Grading System  Annually (Every semester of Course Offerings: Annually (Expert semester, Fall only, annually, etc.)  Date approved: September 1, 2019  Date approved: November 1, 2019  Date of posting: February 21, 2020	Typical Structure of Instructional Hours			□ No □ Yes  Submit outline for (re)articulation: □ No □ Yes (If yes, fill in transfer credit form.)			
Supervised laboratory hours  Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours  Total hours  Total hours  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Supervised laboratory hours  30  □ No □ Yes (If yes, fill in transfer credit form.)  Grading System □ Letter Grades □ Credit/No Credit  Maximum enrolment (for information only): 24  Expected Frequency of Course Offerings: Annually  Annually (Every semester, Fall only, annually, etc.)  Date approved: September 1, 2019  Date approved: November 1, 2019  Date of posting: February 21, 2020	Lecture/seminar hours		75				
Experiential (field experience, practicum, internship, etc.)  Supervised online activities  Other contact hours:  Total hours  Total hours  Total hours:  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Experiential (field experience, practicum, internship, etc.)  Grading System   Maximum enrolment (for information only): 24  Expected Frequency of Course Offerings: Annually  Annually (Every semester, Fall only, annually, etc.)  Date approved: September 1, 2019  Date approved: November 1, 2019  Date of posting: February 21, 2020	Tutorials/workshops						
Supervised online activities Other contact hours:    Total hours   105     Labs to be scheduled independent of lecture hours:   No   Yes     No   Yes     No   Yes     Department / Program Head or Director: Norm Taylor     Faculty Council approval     Dean/Associate VP: John English     Campus-Wide Consultation (CWC)     Campus   Letter Grades   Credit/No Credit     Maximum enrolment (for information only): 24     Expected Frequency of Course Offerings: Annually     Annually (Every semester, Fall only, annually, etc.)     Date approved: September 1, 2019     Date approved: November 1, 2019     Date of posting: February 21, 2020     Campus   February 21, 2020     Campus   Credit/No Credit     Maximum enrolment (for information only): 24     Expected Frequency of Course Offerings: Annually     Annually (Every semester, Fall only, annually     November 1, 2019     Date of posting: February 21, 2020     Campus   Credit/No Credit     Maximum enrolment (for information only): 24     Expected Frequency of Course Offerings: Annually     Annually (Every semester, Fall only, annually     Annually (Every semester, Fall only, annually     Campus   Credit/No Credit     Maximum enrolment (for information only): 24     Expected Frequency of Course Offerings: Annually     Annually (Every semester, Fall only, annually     Campus   Course Offerings: Annually     Campus   Campus   Campus   Campus     Campus   Campus   Campus   Campus     Campus   Campus   Campus   Campus     Campus   Campus   Campus   Campus     Campus   Campus   Campus   Campus   Campus     Campus   Campus   Campus   Campus   Campus   Campus     Campus   Campus   Campus	Supervised laboratory hours		30				
Other contact hours:  Total hours  Total hours  Labs to be scheduled independent of lecture hours: No Yes  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Maximum enrolment (for information only): 24  Expected Frequency of Course Offerings: Annually  Annually (Every semester, Fall only, annually, etc.)  Date approved: September 1, 2019  Date approved: November 1, 2019  Date of posting: February 21, 2020	Experiential (field experience, practicum, int	ernship, etc.)					
Total hours 105  Labs to be scheduled independent of lecture hours: Norm Taylor  Department / Program Head or Director: Norm Taylor  Faculty Council approval  Dean/Associate VP: John English  Campus-Wide Consultation (CWC)  Maximum enrolment (for information only): 24  Expected Frequency of Course Offerings: Annually Annually (Every semester, Fall only, annually, etc.)  Date approved: September 1, 2019  Date approved: November 1, 2019  Date of posting: February 21, 2020	Supervised online activities			□ Letter Grades □ Credit/No Credit			
Total hours       105       Expected Frequency of Course Offerings: Annually Annually (Every semester, Fall only, annually, etc.)         Department / Program Head or Director: Norm Taylor       Date approved: September 1, 2019         Faculty Council approval       Date approved: November 1, 2019         Dean/Associate VP: John English       Date approved: November 1, 2019         Campus-Wide Consultation (CWC)       Date of posting: February 21, 2020	Other contact hours:			Maximu	ım enrolment (for infor	mation only): 24	
Labs to be scheduled independent of lecture hours:       □ No ☑ Yes       Annually (Every semester, Fall only, annually, etc.)         Department / Program Head or Director: Norm Taylor       Date approved:       September 1, 2019         Faculty Council approval       Date approved:       November 1, 2019         Dean/Associate VP: John English       Date approved:       November 1, 2019         Campus-Wide Consultation (CWC)       Date of posting:       February 21, 2020		Total hours	105				
Faculty Council approval  Dean/Associate VP: John English  Date approved:  November 1, 2019  Date approved:  November 1, 2019  Date of posting:  February 21, 2020	Labs to be scheduled independent of lecture hours: \( \subseteq \text{No} \text{ \overline{\text{Yes}}} \)				•	, ,	
Dean/Associate VP: John EnglishDate approved:November 1, 2019Campus-Wide Consultation (CWC)Date of posting:February 21, 2020	Department / Program Head or Director: Norm Taylor			I	Date approved:	September 1, 2019	
Campus-Wide Consultation (CWC)  Date of posting: February 21, 2020	Faculty Council approval				Date approved:	November 1, 2019	
	Dean/Associate VP: John English				Date approved:	November 1, 2019	
Undergraduate Education Committee (UEC) approval  Date of meeting: October 2, 2020	Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2020	
Date of meeting.	Undergraduate Education Committee (UEC) approval				Date of meeting:	October 2, 2020	

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#### 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:

- Identify the relevant physics in mechanical systems.
- · Create mathematical models of oscillating mechanical systems.
- Justify their mathematical models and be aware of their limitations
- Solve the mathematical models of mechanical systems to predict their future behavior.
- · Describe their results clearly to others.
- Collect and analyze data on physical systems, contrasting them with model predictions.

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) This course will be presented using lectures and laboratory experiments. Demonstrations and audio-visual aids will be used whenever appropriate. Problem sets will be assigned and graded for each chapter studied.

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

Ту	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.	Fowles & Cassiday	Analytical Mechanics, 7 <sup>th</sup> ed.	$\boxtimes$	Brooks/Cole	2004				
2.	Alonso & Finn	Fundamental University Physics, Vol. I	$\boxtimes$						
3.	A.P. French	Newtonian Mechanics	$\boxtimes$						
4.	Halliday & Resnick	Physics, Part I	$\boxtimes$	J. Wiley					
5.	Kleppner & Kolenkow	An Introduction to Mechanics	$\boxtimes$	McGraw-Hill					
6.	A. Douglas Davis	Classical Mechanics	$\boxtimes$	Academic Press					

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

## **Typical Evaluation Methods and Weighting**

Final exam:	45%	Assignments:	10%	Field experience:	%	Portfolio:	%
Midterm exam:	25%	Project:	%	Practicum:	%	Other:	%
Quizzes/tests:	10%	Lab work:	10%	Shop work:	%	Total:	100%

## Details (if necessary):

#### **Typical Course Content and Topics**

- · Kinematics: motion in one and two dimensions; dissipative forces; forces as function of time, position, and velocity
- Harmonic oscillator: simple harmonic oscillator, power series representation of an arbitrary function, damped and forced oscillators
- Vectors: vector algebra, vector multiplication, coordinate systems, vector calculus, vector differential operators
- Coordinate systems: plane polar coordinates, cylindrical coordinates, spherical coordinates, moving and rotating coordinate systems, vector differential operators in spherical and cylindrical coordinate systems
- Central forces: potential energy and central forces, angular momentum and central forces, inverse square law and ellipses, Kepler's laws
- Rigid bodies: centre of mass, angular momentum, rotation about a fixed axis, moment of inertia, conservation of energy and momentum
- Systems of particles: momentum, momentum with variable mass (including rockets), collisions, centre of mass

#### Laboratory experiments:

- 1. Dissipative forces (F, v) (two lab periods)
- 2. Anharmonic motion (two lab periods)
- 3. Damped harmonic motion
- 4. Coupled harmonic motion
- 5. Forced damped oscillations
- 6. Compound pendulum
- 7. Moment of inertia of complex symmetric shapes

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	Memo for Course Changes
o:	
ro	m: Norm Taylor, Physics Department Head
at	e: November 1, 2019
ub	ject: Proposal for revision of PHYS 225 (Waves and Introductory Optics)
	Summary of changes (select all that apply):
	☐ 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
	<ul><li>□ PLAR options, grading system, and/or evaluation methods</li><li>□ Discontinuation of course</li></ul>
	☐ Other – Please specify:
	and Trease specify.
	Rationale for change:
	<ul> <li>No real major changes to report. The calendar description has been vastly simplified, the hours have been tweaked a little bit to reflect the actual contact time, and there have been minor adjustments to the learning outcomes.</li> </ul>
	If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):
	An LO has been added to reflect current thinking on what the program should contain.
٠.	Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?
	• N/A
	Which program areas have been consulted about the change(s)?
	• N/A
j.	What consideration has been given to indigenizing the curriculum?
•	The department attempts to incorporate questions in physics relevant to the lives of indigenous students.
	If this course is not eligible for PLAR, explain why:

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- 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

0

b. Class size limit

0

c. Frequency of offering

0

d. Resources required (labs, equipment)

С

- 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:
  - The recommended (but not required) text is about \$150

# **CWC** comments and responses:

 90 hours for a 3 credit course is not consistent with Policy 105. UEC will need additional rationale to support this.

As with PHYS 382, hours devoted to labs are counted somewhat differently. But since these labs do take over a small part of the lecture time, the hours will be adjusted back to their original values, although this will undercount them a bit.

- Learning outcome #8: "demonstrate a knowledge of" should be changed to a more measurable verb, such as describe, explain, discuss, etc.
   Changing the first verb to "Explain" will be fine.
- Learning outcome #11: how is this assessed? Is the outcome that students be able to work
  collaboratively, or is the reporting of the results what is being assessed? Suggest revising for
  clarity.

Again, this is an attempt to incorporate anticipated BSc program learning outcomes into course outlines, so something like this will have to be included at some point. But perhaps that point is not now.

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ORIGINAL COURSE IMPLEMENTATION DATE:

REVISED COURSE IMPLEMENTATION DATE:

January 2021

COURSE TO BE REVIEWED (six years after UEC approval):

October 2026

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.

Course Code and Number: PHYS 225	N	lumber of Cre	edits: 3 C	ourse credit policy (105)	
Course Full Title: Waves and Introductory Course Short Title: (Transcripts only display 30 characters. Depart	•	recommend a	short title	if one is needed. If left b	lank, one will be assigned.)
Faculty: Faculty of Applied and Technical St	udies D	epartment (c	r prograi	m if no department): Ph	ysics
Calendar Description:					
An introduction to wave properties as they ap also be studied; a small number of experimen					
Prerequisites (or NONE):	PHYS 221.				
Corequisites (if applicable, or NONE):	PHYS 381 re	ecommended.			
Pre/corequisites (if applicable, or NONE):					
Antirequisite Courses (Cannot be taken for Former course code/number: Cross-listed with: Dual-listed with: Equivalent course(s): (If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this  Typical Structure of Instructional Hours Lecture/seminar hours Tutorials/workshops Supervised laboratory hours Experiential (field experience, practicum, into Supervised online activities	will be with credit	Special Topics (Double-click on boxes to select.)  This course is offered with different topics:  No Yes (If yes, topic will be recorded when offered Independent Study  If offered as an Independent Study course, this course may be repeated for further credit: (If yes, topic will be recorded No Yes, repeat(s) Yes, no limit  Transfer Credit  Transfer credit already exists: (See bctransferguide.ca.)  No Yes  Submit outline for (re)articulation:  No Yes (If yes, fill in transfer credit form.)  Grading System  Letter Grades ☐ Credit/No Credit			
Other contact hours:			Maximu	um enrolment (for infor	mation only): 24
	Total hours	75		ed Frequency of Cours	• •
Labs to be scheduled independent of lecture	hours: 🛚 No	☐ Yes	Annuall	y (Every semester, Fall o	only, annually, etc.)
Department / Program Head or Director: N	orm Taylor			Date approved:	November 1, 2019
Faculty Council approval				Date approved:	January 10, 2020
Dean/Associate VP: John English				Date approved:	January 10, 2020
Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2020
Undergraduate Education Committee (UEC	C) approval			Date of meeting:	October 2, 2020

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#### 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:

- Apply the relationship between frequency, velocity, and wavelength of waves to various situations.
- Solve the wave equation for various boundary conditions in one dimension.
- Distinguish the difference between standing and traveling waves.
- · Verify both plane wave and spherical wave solutions to the wave equation, and apply them to diffraction.
- Describe the difference between transverse and longitudinal waves, and identify examples of both.
- Utilize the concepts of interference and superposition of waves to perform specific calculations.
- Perform calculations involving the relationship between power and intensity of sound waves.
- Explain Huygens principle, and be able to apply it to simple situations.
- · Perform basic calculations for simple optical systems involving the reflection, refraction, and diffraction of light.
- Show how a wave equation can be derived from Maxwell's equations in free space.
- Apply de Broglie and Planck's hypotheses to simple quantum systems.

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) This course is primarily lecture-based, but laboratory experiments will be performed on roughly a bi-weekly basis in order to both help students better understand the lecture material, and gain a deeper insight into the physical processes involved.

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

Тур	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.	Smith, Walter Fox	Waves and Oscillations: A Prelude to Quantum Mechanics		Oxford University Press	2010				
2.	French, A.P.,	Vibrations and Waves		W. W. Norton & Company	1971				
3.	Fleisch & Kinnaman	A Student's Guide to Waves		Cambridge University Press	2015				
4.									
5.					_				

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

#### **Typical Evaluation Methods and Weighting**

Final exam	35%	Assignments:	20%	Field experience:	%	Portfolio:	%
Midterm ex	am: 20%	Project:	%	Practicum:	%	Other:	%
Quizzes/te	ts: 10%	Lab work:	15%	Shop work:	%	Total:	100%

# Details (if necessary):

#### **Typical Course Content and Topics**

# 1. Review and extension of harmonic motion

 Basic equation of SHM with real and complex solutions, mass on a spring, simple pendulum, physical pendulum, torsion oscillators, buoyant oscillations (cork bobbing in water), coupled oscillators

#### 2. Continuous media

 Stress and strain, elastic deformations and Young's modulus, derivation of the wave equation for a 1-dimensional string, relationship between frequency, velocity and wavelength, energy carried by a wave

#### 3. Solutions to the 1D wave equation

Boundary conditions for standing waves and the quantization of frequency, boundary conditions for traveling waves between
different media, reflection and transmission coefficients, superposition and interference, beats, wave packets and Fourier
series, group and phase velocities

#### 4. Sound

Sound as a 3D longitudinal pressure wave, bulk modulus and the velocity of sound, simple musical instruments, beats,
 Doppler shift, power and intensity of sound waves, sonar, noise cancellation

# 5. More properties of waves

· Huygens principle, reflection and refraction, diffraction from: single slit, double slit and multiple slits

#### 6. Wave optics

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# University of the Fraser Valley Official Undergraduate Course Outline

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3D wave equation from Maxwell's equations, polarization, law of reflection, index of refraction, Snell's law, total internal
reflection, dispersion, presentation of lens and mirror equations, real and virtual images, magnification, examples of simple
optical systems, Doppler shift of light

# 7. Matter waves

• Planck and deBroglie's hypotheses, energy and momentum quantization, quantum theory and the simplified hydrogen atom, Balmer series, derivation of the Schrödinger equation and the introduction of the wavefunction

## Laboratory experiments:

- 1. Periodic motion
- 2. Resonance in an air column
- 3. Standing waves on a wire
- 4. Interference of sound and light
- 5. Geometric optics and the thin lens equation
- 6. Diffraction of light
- 7. Spectral analysis

COURSE OUTLINES Page 87 of 112

To: UEC  From: Norm Taylor, Physics Department Head  Date: November 7, 2019  Subject: Proposal for revision of PHYS 382 (Modern Physics Laboratory 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:  This 6-year review incorporates no major changes. 3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  Implicit outcomes including the practice of scientific communication and teamwork are made more explicit.  4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?  Also part of the Engineering Physics - Mechatronics diploma. The program group has been consulted and approves the minor changes. 5. Which program areas have been consulted about the change(s)?  See above 6. What consideration has been given to indigenizing the curriculum?  The department attempts to incorporate questions in physics relevant to the lives of indigenous students. In this particular course, students are encouraged to come up with their own ideas for a suitable project. If it happens to have an indigenous component,								
From: Norm Taylor, Physics Department Head  Date: November 7, 2019  Subject: Proposal for revision of PHYS 382 (Modern Physics Laboratory 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:  • This 6-year review incorporates no major changes.  3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Implicit outcomes including the practice of scientific communication and teamwork are made more explicit.  4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?  • Also part of the Engineering Physics – Mechatronics diploma. The program group has been consulted and approves the minor changes.  5. Which program areas have been consulted about the change(s)?  • See above  6. What consideration has been given to indigenizing the curriculum?  • The department attempts to incorporate questions in physics relevant to the lives of indigenous students. In this particular course, students are encouraged to come up with their own ideas for a suitable project. If it happens to have an indigenous component,		Memo for Course Changes						
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COURSE OUTLINES Page 88 of 112

•	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

0

- b. Class size limit
  - This has been changed for reasons of available lab space. There are only 10
    workstations available. The thinking is that the default number of students per
    group is 2, as has been the standard since 1<sup>st</sup> year.
- c. Frequency of offering

0

d. Resources required (labs, equipment)

0

- 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:
  - Students may need to purchase parts for their project. The department will reimburse the student for reasonable costs.

COURSE OUTLINES Page 89 of 112



ORIGINAL COURSE IMPLEMENTATION DATE: June 1993

REVISED COURSE IMPLEMENTATION DATE: January 2021

COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: PHYS 382	1	Number of Cre	edits: 3 C	ourse credit policy (105	1
Course Full Title: Modern Physics Laborate Course Short Title: (Transcripts only display 30 characters. Department of the Course Full Full Course Full Course Full Course Full Course Full Course Full Full Course Full Full Course Full Full Full Full Full Full Full Ful	•	recommend a	short title	if one is needed. If left b	olank, one will be assigned.)
Faculty: Faculty of Applied and Technical St	udies [	Department (o	r prograi	m if no department): P	hysics
Calendar Description:	<u> </u>				
Students will be required to do a selection of physics, thermodynamics, electromagnetism,					
Prerequisites (or NONE):	PHYS 221,	PHYS 225, or	PHYS 23:	2.	
Corequisites (if applicable, or NONE):					
Pre/corequisites (if applicable, or NONE):		S 312, PHYS 3 S 458 is enco		S 351, PHYS 402, PHY	S 410, PHYS 455, PHYS
Antirequisite Courses (Cannot be taken for Former course code/number: Cross-listed with: Dual-listed with:	additional cre	edit.)	Special Topics (Double-click on boxes to select.)  This course is offered with different topics:  No ☐ Yes (If yes, topic will be recorded when offered.)		
Equivalent course(s): (If offered in the previous five years, antirequincluded in the calendar description as a note for the antirequisite course(s) cannot take this	e that students	with credit	If offere be repe	ated for further credit: (I	udy course, this course may f yes, topic will be recorded.  Yes, no limit
Typical Structure of Instructional Hours				er Credit r credit alreadv exists: /	See <b>bctransferguide.ca</b> .)
Lecture/seminar hours			⊠ No	,	,
Tutorials/workshops			Submit	outline for (re)articulatio	n:
Supervised laboratory hours		45	☐ No	☐ Yes (If yes, fill in tra	nsfer credit form.)
Experiential (field experience, practicum, int	ternship, etc.)		Gradin	g System	
Supervised online activities			□ Lette	er Grades 🔲 Credit/N	o Credit
Other contact hours: Presentation		5	Maximu	um enrolment (for info	rmation only): 20
	Total hours	50	Expect	ed Frequency of Cours	se Offerings:
Labs to be scheduled independent of lecture	hours: 🛛 No	Yes	-	very two or three years	(Every semester, Fall only,
Department / Program Head or Director: N	lorm Taylor			Date approved:	December 1, 2019
Faculty Council approval				Date approved:	January 10, 2020
Danis / Anna sista V.D. Jaha Familiah				Date approved:	January 10, 2020
Dean/Associate VP: John English					
Dean/Associate VP: John English Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2020

COURSE OUTLINES Page 90 of 112

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

Page 2 of 3

# **Learning Outcomes:**

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

- 1. Demonstrate that a theoretical claim is only as good as the supporting data.
- 2. Form and answer their questions experimentally.
- 3. Use several standard measuring devices found in most modern physics labs.
- 4. Measure and to check if the classroom theory is reproducible in the lab.
- 5. Do some simple research projects.
- 6. Exhibit lab and presentation skills suitable for publishable documents and conference presentations.
- 7. Show the technical communication and presentation skills used in industry and academic research.
- Demonstrate familiarity with the theory, apparatus, procedure, and results of several experiments from the list in the course content section (below).

## Prior Learning Assessment and Recognition (PLAR)

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

- At the beginning, all students will be required to do a few specific experiments, usually two, requiring two weeks each. (Topics
  will likely be absorption of radiation, Millikan's experiment or photoelectric effect.) The remaining experiments will be chosen
  from a suggested list which will cover a wide cross section of the standard physics disciplines: mechanics, electricity,
  magnetism, optics, thermodynamics, solid state physics, electronics, etc. (Again, usually two experiments requiring one month
  each.)
- 2. The students may work individually, but preferably in groups.

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. None

2. 

3.

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

## **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Project:	15%	Practicum:	%	Seminar/Presentation:	10%
Quizzes/tests:	%	Lab work: (reports)	75%	Shop work:	%	Total:	100%

#### Details (if necessary):

- The majority of marks earned (75%) in this course will be derived from the accumulated grades assigned to the individual laboratory reports.
- 2. The students will be required to give a presentation/seminar in which they will discuss their project. This project and seminar will be worth 25% of the final grade assigned.

## **Typical Course Content and Topics**

# Optics Group:

- 1. Geometric optics (visible light or microwave optics)
- 2. Interference and diffraction (single & double slit)
- 3. Grating and/or prism spectrometer
- 4. Michelson interferometer and the index of refraction of air
- 5. Fabry-Perot interferometer
- 6. Speed of light
- Fresnel lenses
- 8. Zeeman effect
- 9. Thin film interference
- 10. Analysis of mirage optics demo

# Advanced Mechanics Group:

- 1. Determine the numerical value for the gravitational constant G. (Cavendish apparatus) (awaiting repairs)
- 2. Measuring the acceleration due to gravity (Kater's pendulum)
- 3. Mechanical equivalent of heat
- 4. Angular momentum
- 5. Gyroscopic precession and nutation

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# University of the Fraser Valley Official Undergraduate Course Outline

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- 6. Measuring the rolling friction and air friction on an automobile as a function of its speed
- 7. Measuring the lift to drag ratio on various shaped bodies in laminar airflow
- 8. Terminal velocity of a balloon and bubbles

# Advanced E&M Group:

- 1. Plotting of 3D magnetic fields (Helmholtz coils) Hall probe
- 2. Ferromagnetism (hysteresis)
- 3. Impedance of loudspeakers
- 4. Current balance
- 5. Coils & spinning magnets
- 6. Hall effect

#### 20th Century Physics Group:

- Black body radiation
- 2. Millikan oil drop experiment (required)
- 3. Photoelectric effect (required)
- 4. Michelson/Morley
- 5. Radiation -physics and probability (required)
- 6. Franck-Hertz experiment
- 7. Electron spin resonance
- 8. Measurement of heat loss from various residences using an infrared camera

# Historical Group: (PHYS 410)

- 1. Millikan oil drop experiment
- 2. Photoelectric effect
- 3. Michelson/Morley
- 4. Curvature of the Earth
- 5. Geometric parallax
- 6. Galilean experiments (rolling bodies, speed of light, etc.)
- 7. Galilean astronomy (telescope, observations, calculations, etc.)
- 8. Foucault's pendulum
- 9. Gas laws (Boyle's law, Charles law)

## Other Experiments:

- 1. Expansion and thermal conductivity of metals
- 2. Viscous flow through tubes
- 3. Doppler effect
- Etc.

# Individual Research Projects

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	Memo for Course Changes						
To:	: UEC						
Fro	om: Norm Taylor, Physics Department Head						
Dat	ite: August 25, 2019						
Suk	bject: Proposal for revision of PHYS 408 (Special Topics in Physics)						
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 hours have been changed to be more realistic about actual instructional hours.						
	The learning outcomes have been tweaked to emphasize the links with all of the program's						
	learning outcomes, especially with those of scientific communication, employing their						
	learning outcomes, especially with those of scientific communication, employing their scientific skills and reviewing current literature.						
3.							
3.	scientific skills and reviewing current literature.						
3.	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning						
3.	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):						
3.	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been						
	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to						
	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to learn how to explain knowledge that they have researched, and to teach it to others.						
	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to learn how to explain knowledge that they have researched, and to teach it to others.  Is this course required by any program beyond the discipline? If so, how will this change affect that						
4.	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to learn how to explain knowledge that they have researched, and to teach it to others.  Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?						
4.	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to learn how to explain knowledge that they have researched, and to teach it to others.  Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?  • No						
<b>4</b> .	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to learn how to explain knowledge that they have researched, and to teach it to others.  Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?  • No  Which program areas have been consulted about the change(s)?  • None						
<ol> <li>4.</li> <li>6.</li> </ol>	scientific skills and reviewing current literature.  If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):  • Communicating scientific knowledge is a big component of this course. Students have been exposed to presentations of one sort or another for many years. Now it is time for them to learn how to explain knowledge that they have researched, and to teach it to others.  Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs?  • No  Which program areas have been consulted about the change(s)?						

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- 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
    - No change
  - b. Class size limit
    - o No change
  - c. Frequency of offering
    - Intermittent
  - d. Resources required (labs, equipment)
    - Dependent on topic. For example, 408D (Survey of Astronomy & Astrophysics) is mostly a lecture course, but 408C is Medical Physics, which may involve working at the BC Cancer Centre.
- 9. Are field trips required for this course? (Field trip requirements must be announced in the timetable.) How are the trips funded?
  - Depends on the topic. 408C may require students to carpool to the Abbotsford Regional Cancer Centre (ARCC), whereas 408D students may take an optional trip to one or both of the Dominion Astrophysical Observatories in a UFV van, partially funded by the department.
- 10. Estimate of the typical costs for this course, including textbooks and other materials:
  - Very dependent on topic, but \$150 is a reasonable estimate.

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ORIGINAL COURSE IMPLEMENTATION DATE: September 2010
REVISED COURSE IMPLEMENTATION DATE: January 2021
COURSE TO BE REVIEWED (six years after UEC approval): October 2026

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.

Course Code and Number: PHYS 408	1	Number of Cre	edits: 3 <u>C</u>	ourse credit policy (105)	
Course Full Title: Special Topics in Physics Course Short Title: (Transcripts only display 30 characters. Depart		recommend a	short title	if one is needed. If left b	lank, one will be assigned.)
Faculty: Faculty of Applied and Technical Stu	idies [	Department (o	r prograr	n if no department): Ph	nysics
Calendar Description:	'				
Covers a topic in physics which is not included such as astrophysics, atmospheric physics, bi theory, quantum chromodynamics, string theo Department Head for more information.	ophysics, clir	nate physics, g	geophysic	s, medical physics, ocea	nography, quantum field
Note: This course will be offered under differe repeated for credit provided the letter designate.		gnations (e.g. (	C-Z) repre	senting different topics.	This course may be
Prerequisites (or NONE):		PHYS 300 or a equire more pa			uctor. Certain programs of
Corequisites (if applicable, or NONE):	NONE				
Pre/corequisites (if applicable, or NONE):	NONE				
Antirequisite Courses (Cannot be taken for a Former course code/number: Cross-listed with: Dual-listed with: Equivalent course(s): (If offered in the previous five years, antirequisincluded in the calendar description as a note for the antirequisite course(s) cannot take this  Typical Structure of Instructional Hours	) will be s with credit	This could not	ndent Study d as an Independent Stuated for further credit: (https://doi.org/10.1001/j.com/10.1001/j	,	
Lecture/seminar hours		30	⊠ No	Yes	,
Tutorials/workshops			Submit	outline for (re)articulation	n:
Supervised laboratory hours			⊠ No	☐ Yes (If yes, fill in tran	nsfer credit form.)
Experiential (field experience, practicum, inte	ernship, etc.)		Grading	g System	
Student directed learning			□ Lette	er Grades	Credit
Other contact hours: Presentations, seminar lectures	s, student	15	Maximu	um enrolment (for infor	mation only): 24
	Total hours	45	•	ed Frequency of Cours	•
Labs to be scheduled independent of lecture h	nours: No	Yes		-3 years as demand war nually, etc.)	rants (Every semester, Fall
Department / Program Head or Director: No	orm Taylor			Date approved:	October 2019
Faculty Council approval				Date approved:	November 1, 2019
Dean/Associate VP: John English				Date approved:	November 1, 2019
Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2020
	approval			Date of meeting:	October 2, 2020

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

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#### **Learning Outcomes:**

Upon successful completion of this course, in a branch of physics not currently covered by the department's undergraduate curriculum, students will be able to:

- Demonstrate advanced knowledge of the area, through discussions, seminars, written presentations and giving presentations or short lectures.
- Solve problems at a level typical of an upper-year physics course in the topic area.
- · Identify key sources of information for self-guided study in the area in question i.e. books, journal articles, online resources, etc.
- Study independently.
- Deliver effective oral presentations on a course topic.
- · Critique the presentations and lectures of other students.
- Prepare a major written document on their selected relevant topic after reviewing the current literature.

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

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

**Typical Instructional Methods** (Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.) Directed reading, oral presentations and/or short student lectures, written project, lectures or labs, if appropriate.

#### 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			
For PHYS 408D, Astrophysics and PHYS 408E, Quantitative Survey of Astronomy:								
1.	Carroll B. & Ostlie D.	An Introduction to Modern Astrophysics, 2 <sup>nd</sup> ed.	$\boxtimes$	Addison-Wesley	2006			
	Other supplemental texts may	y include:						
2.	Liddle A.	Introduction to Modern Cosmology, 3 <sup>rd</sup> ed.	$\boxtimes$	Wiley	2015			
3.	de Pater I. & Lissauer J.	Planetary Sciences, 2 <sup>nd</sup> ed.	$\boxtimes$	Cambridge University	2015			
4.	Jones M. ed. et al	Introduction to Galaxies & Cosmology	$\boxtimes$	Cambridge University	2015			

The availability of texts and other materials will depend to a great extent on the chosen topic.

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

Online resources, such as the Los Alamos pre-print server or the SPIRES or arXiv database.

#### **Typical Evaluation Methods and Weighting**

# Details (if necessary):

#### For PHYS 408D, Astrophysics:

 1st lecture/talk by student:
 5%

 2nd lecture:
 10%

 3rd lecture:
 10%

 Participation:
 10%

 Project (5000+ word paper):
 20%

 Midterm:
 15%

 Final exam:
 30%

# For PHYS 408E, Quantitative Survey of Astronomy:

Project: 20%
Assignments: 10%
Presentations: 20%
Midterm exam: 15%
Final exam: 35%

# **Typical Course Content and Topics**

The main purpose of this class is to allow students to study a branch of physics in which the department currently does not offer a course, possibly in preparation for graduate studies. Examples of such areas may include astrophysics, atmospheric physics, biophysics, climate physics, geophysics, medical physics, oceanography, quantum field theory, quantum chromodynamics, string theory, photonics, and quantum computing. Specific course content will necessarily vary with the subject area, and each separate area will use a different letter attached to the course number.

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# University of the Fraser Valley Official Undergraduate Course Outline

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# For PHYS 408D, Astrophysics:

- Week 1: Celestial sphere and review of mechanics and EM radiation, i.e. light
- Week 2: Instrumentation and observation
- Week 3: Observing stars and telescopes
- Week 4: Stars #2: measuring stars and the HR diagram
- Week 5: Stars #3: stellar structure; student lectures
- Week 6: Formation and evolution of stars
- Week 7: Variable stars and supernovae
- Week 8: Stellar remnants
- Week 9: GR and black holes; student lectures
- Week 10: Structure and evolution of galaxies and evidence for dark matter
- Week 11: Cosmology #1
- Week 12: Cosmology #2 and evidence for dark energy
- Week 13: Student lectures; optional field trip

# For PHYS 408E, Quantitative Survey of Astronomy:

- Week 1: Introduction and history: Stone Age to Arabic astronomy
- Week 2: History: Renaissance to the 20th century
- Week 3: Observing light: different scopes for all wavelengths
- Week 4: Gravitation, accretion disks, and making a solar system
- Week 5: Terrestrials, Jovians, left-overs, and exoplanets
- Week 6: Making a star
- Week 7: Life cycles of stars: on the main sequence
- Week 8: At the end: blow up, or burn out and fade away
- Week 9: Variable stars and their connection to the distance ladder
- Week 10: Pulsars, black holes, and other oddities in the stellar menagerie
- Week 11: Quasars, SMBHs and galactic evolution
- Week 12: Cosmology: the Big Bang and its aftermath
- Week 13: Presentations

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	Memo for Course Changes						
To:	: UEC						
Frc	om: Norm Taylor, Physics Department Head						
Da	te: December 1, 2019						
Sul	bject: Proposal for revision of PHYS 383 (Modern Physics Laboratory II) (changing to PHYS 482)						
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:						
	<ul> <li>6-year review. Although many things have been updated, the course remains essentially the same.</li> </ul>						
3.	If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s):						
	<ul> <li>Communication outcomes are emphasized. Teamwork is not, as it is expected that only 2 or 3 students will be taking this course at any one time.</li> </ul>						
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?						
	The department attempts to incorporate questions in physics relevant to the lives of						
	indigenous students. In this course, students are required to come up with their own ideas for a suitable project. If it happens to have an indigenous component, excellent.						
7.	If this course is not eligible for PLAR, explain why:						
	N/A						

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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
  - o This has been changed for reasons of available lab space. There are only 10 workstations available, which will likely have to be shared with PHYS 382 students. (The plan is that usually the two courses will be run concurrently.)
- c. Frequency of offering

0

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:
  - Students may need to purchase parts for their project. The department will reimburse the student for reasonable costs.

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ORIGINAL COURSE IMPLEMENTATION DATE:

REVISED COURSE IMPLEMENTATION DATE:

January 2021

COURSE TO BE REVIEWED (six years after UEC approval):

October 2026

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.

Course Code and Number: PHYS 482	N	Number of Credits: 3 Course credit policy (105)				
Course Full Title: Modern Physics Laborate	ory II					
Course Short Title:						
(Transcripts only display 30 characters. Departments	rtments may r	ecommend a	short title	if one is needed. If left b	lank, one will be assigned.)	
Faculty: Faculty of Applied and Technical St	udies D	Department (or program if no department): Physics				
Calendar Description:						
A continuation of PHYS 382 with different, mo expand their understanding of physics and co						
Note: Students who have done PHYS 382 mu previously completed.	ust present a la	ab book or wr	ite-ups at t	he beginning of the cou	rse to show the experiments	
Note: Students with credit for PHYS 383 cann	not take this co	ourse for furth	er credit.			
Prerequisites (or NONE):	PHYS 382.					
Corequisites (if applicable, or NONE):	NONE					
			12, PHYS 321, PHYS 351, PHYS 402, PHYS 410, PHSY 455, 3 are strongly recommended.			
Antirequisite Courses (Cannot be taken for	additional cred	dit.)	Special Topics (Double-click on boxes to select.)			
Former course code/number: <b>PHYS 383</b> Cross-listed with:				This course is offered with different topics:  ☑ No ☐ Yes (If yes, topic will be recorded when offered.		
Equivalent course(s):		If offered as an Independent Study course, this course may				
(If offered in the previous five years, antirequincluded in the calendar description as a note			be repeated for further credit: (If yes, topic will be recorded.			
for the antirequisite course(s) cannot take this			⊠ No	Yes, repeat(s)	Yes, no limit	
				r Credit		
Typical Structure of Instructional Hours			Transfer credit already exists: (See <u>bctransferguide.ca</u> .)			
Lecture/seminar hours Tutorials/workshops			No ☐ Yes Submit outline for (re)articulation:			
Experiential (field experience, practicum, internship, etc.)			Grading System			
Supervised online activities			□ Lette	r Grades	Credit	
Other contact hours: Seminar/Presentation		5	Maximu	ım enrolment (for info	mation only): 24	
	Total hours	50		ed Frequency of Cours	• •	
Labs to be scheduled independent of lecture	hours: 🛚 No	☐ Yes	1 -	ent on student demand	(Every semester, Fall only,	
Department / Program Head or Director: N	orm Taylor			Date approved:	December 1, 2019	
Faculty Council approval				Date approved:	January 10, 2020	
Dean/Associate VP: John English				Date approved:	January 10, 2020	
	Campus-Wide Consultation (CWC)					
Campus-Wide Consultation (CWC)				Date of posting:	February 21, 2020	

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#### 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. Demonstrate that a theoretical claim is only as good as the supporting experimental results.
- Develop experimental procedures to answer scientific questions.
- 3. Use several standard measuring devices found in most graduate physics labs.
- 4. Test whether the theory outlined in other courses can be experimentally confirmed.
- 5. Do some simple research projects.
- 6. Utilize advanced physics lab and presentation skills.
- 7. Further exhibit the technical communication and presentation skills used in industry and academic research, up to writing and presenting a paper that is essentially of publication quality.
- 8. Demonstrate familiarity with the theory, apparatus, procedure and results of several experiments from the list in the course content section (below).

## Prior Learning Assessment and Recognition (PLAR)

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

- The student may do a selection of experiments from a suggested list related to a specific course like PHYS410 (History of Physics), PHYS 402 (Optics), PHYS 321 (Advanced Mechanics), PHYS 312 (Intermediate Electromagnetism) or PHYS 351 (Quantum Mechanics) or they may choose from a list of suggested experiments, which will cover a wide cross section of the standard physics disciplines: mechanics, electricity, magnetism, optics, thermodynamics, solid state physics, etc.
- 2. The students will work individually, and will present lab reports and/or presentations for each of his or her experiments.

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

Materials (If more space is required, download	Supplemental Texts and Resource Mater	ials form.)
Title (article, book, journal, etc.)	Current ed. Publisher	Year
		_
	Materials (If more space is required, download Title (article, book, journal, etc.)	Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource Materials (If more space is required, download Supplemental Texts and Resource If more space is required (If more space is required, download Supplemental Texts and Resource If more space is required (If more space is required, download Supplemental Texts and Resource If more space is required (If

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

## **Typical Evaluation Methods and Weighting**

Final exam:	%	Assignments:	%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Project:	50%	Practicum:	%	Other: Seminar	20%
Quizzes/tests:	%	Lab work: (reports)	30%	Shop work:	%	Total:	100%

#### Details (if necessary):

- The majority of marks earned (80%) in this course will be derived from the accumulated grades assigned to the individual laboratory reports on monthly and final projects.
- 2. The students will be required to give a seminar in which they will discuss the theory and present their results from their final project. This seminar will be worth 20% of the final grade assigned.

#### **Typical Course Content and Topics**

## Optics Group:

- 1. Geometric optics (visible light or microwave optics)
- 2. Interference and diffraction (single and double slit)
- 3. Grating and/or prism Spectrometer
- 4. Michelson interferometer and the index of refraction of air
- 5. Fabry-Perot interferometer
- 6. Speed of light (two procedures rotating mirror and coaxial cable)
- 7. Fresnel lenses
- 8. Zeeman effect
- 9. Thin film interference
- 10. Analysis of mirage optics demo

Advanced Mechanics Group:

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#### **PHYS 383**

# University of the Fraser Valley Official Undergraduate Course Outline

- 1. Determine the numerical value for the Gravitational constant G. (Cavendish apparatus)
- 2. Measuring the acceleration due to gravity. (Kater's pendulum)
- 3. Mechanical equivalent of heat
- 4. Angular momentum
- S. Gyroscopic precession and nutation
   Measuring the rolling friction and air friction on an automobile as a function of its speed
- 7. Measuring the lift to drag ratio on various shaped bodies in a laminar airflow situation
- 8. Terminal velocity of a balloon and bubbles

# Electromagnetism Group:

- 1. Plotting of magnetic fields (3D) Helmholtz coils
- 2. Ferromagnetism (hysteresis)
- 3. Impedance of loudspeakers
- 4. Current balance
- 5. Coils and spinning magnets
- 6. Hall effect

#### 20th Century Physics Group:

- 1.Black body radiation
- 2. Millikan oil drop experiment
- 3. Photoelectric effect
- 4. Michelson/Morley
- 5. Radiation physics and probability
- 6. Franck-Hertz experiment
- 7. Electron spin resonance
- 8. Measurement of heat loss from various residences using an infrared camera

#### Historical Group:

- 1. Millikan oil drop experiment
- 2. Photoelectric effect
- 3. Michelson/Morley
- 4. Curvature of the Earth
- 5. Geometric parallax
- 6. Galilean experiments (rolling bodies, speed of light, etc.)
- 7. Galilean astronomy (telescope, observations, calculations, etc.)
- 8. Foucault's pendulum
- 9. Gas laws (Boyle's law, Charles law)

#### Other Experiments:

- 1. Expansion and thermal conductivity of metals
- 2. Viscous flow through tubes
- 3. Doppler effect

# Individual Research Projects

**COURSE OUTLINES** Page 102 of 112





To: Samantha Pattridge, UEC Chair

From: Peter Geller, Vice Provost and Associate Vice President, Academic

Date: September 22, 2020

Re: In Camera Item October 2: QAPA Institution Report Draft Review

# Summary

UFV is currently engaged in its first Quality Assurance Process Audit (QAPA) as mandated by the Degree Quality Assessment Board (DQAB). The second step of the QAPA process is for UFV to deliver a self-study, called the institution report, to the DQAB Secretariat. The first part of this draft Institution Report, is complete and being submitted to the Senate, APPC, GSC and UEC for in camera discussion and feedback prior to its expected submission on October 16th. The structure of this report is wholly dictated by DQAB's QAPA Handbook. Section 6 of this report will be completed once UFV knows which sample programs are to be included in its QAPA.

#### Request

That the UEC review the confidential draft Institution Report, sections 1 through 5, and provide feedback on its contents to Program Development and Quality Assurance.

**Note:** The confidential report is available in **S:\Groups\UEC\2020-10-02 PDQA**.



#### **UEC ADMISSIONS SUBCOMMITTEE**

## **TERMS OF REFERENCE**

The UEC Admissions Subcommittee (UECAS) is a subcommittee of the Undergraduate Education Committee.

# **Purpose**

The purpose of the subcommittee is to:

- Make decisions on special admissions requests and waivers of the language proficiency requirement for individual students.
- Advise UEC on issues related to admissions or language policy.

#### **PROCEDURES**

#### **Process**

- Students requesting special admission are required to submit the special admission request form, provide transcripts of courses and grades related to their program admission requirements, and all other requirements specified on the form.
- Requests for variation of language entrance proficiency requirements must be made in writing, and must include evidence of test scores, transcripts of courses completed, and/or writing samples.
- Additional supporting documents may be requested by the Associate Registrar, Deputy Registrar, Admissions coordinator, or the committee.
- Decisions may be made in a formal meeting, or through an email vote. For email votes, members will have a minimum of five business days to respond.
- Decisions require a decision of the majority of the members in attendance at the meeting or who
  participate in an email vote (minimum 3 in favour), however, if two or more members express
  strong opposition to the decision, or the committee is unable to decide, the decision will be
  referred to UEC.
- UECAS may make recommendations to UEC for changes to admissions policy or language policy, or to the language proficiency standards.

## Reporting

• The chair will retain a record of all decisions made.

## **COMPOSITION**

# Membership

- Registrar or designate
- Two UEC members
- One International Education representative
- Two additional members, including at least one advisor

# Chair

The UECAS will determine a chair each September.



#### **UEC TRANSFER CREDIT SUBCOMMITTEE**

#### **TERMS OF REFERENCE**

The UEC Transfer Credit Subcommittee (TCS) is a subcommittee of the Undergraduate Education Committee.

# **Purpose**

The purpose of the subcommittee is to make decisions on transfer credit recommendations for specific courses or programs from institutions or programming not recognized under Transfer credit policy, and that do not qualify for exemption from UEC approval. These might include, but not be limited to, courses from private post-secondary institutions, education or training provided by a non-post-secondary institution or organization, and formal non-credit education from any source.

The committee will not evaluate prior learning obtained other than through formal courses or programs.

# **PROCEDURES**

#### **Process**

- The TCS will make decisions on specific transfer recommendations made or signed off by the
  department head for the most closely related discipline. If UFV does not offer a related discipline,
  the decisions should be approved by the dean or designate for the most closely related faculty.
- The TCS may request additional information or clarification from the person who evaluated the course or program.
- For precedent-setting decisions, the TCS will consider the degree of confidence in the consistency
  of standards at the sending institution.
- Transfer credit decisions may be made in a formal meeting, or through an email vote. For email votes, members will have a minimum of five business days to respond.
- Transfer credit decisions require a decision of the majority of the members in attendance at the
  meeting or who participate in an email vote (minimum 3 in favour), however, if two or more
  members express strong opposition to the decision, or the committee is unable to decide, the
  decision will be referred to UEC.
- The TCS will advise UEC on other transfer credit issues.

#### Reporting

The chair will retain a record of all decisions made.

# **COMPOSITION**

#### Membership

- Registrar or designate
- Two UEC members
- At least two additional faculty (as diverse a representation as possible)
- One advisor

#### Chair

The TCS will determine a chair each September.



# **UEC POLICY SUBCOMMITTEE**

The UEC Policy Subcommittee is a subcommittee of the Undergraduate Education Committee.

# **PURPOSE**

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**

- 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

# Membership

- One UEC Chair
- Registrar (or designate)
- Two UEC Faculty members\*
- One UEC Advisor\*
- One IR representative
- One Dean
- One UEC at large member\*

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.)

<sup>\*</sup> Two-year term, renewable.



#### **UEC SCREENING SUBCOMMITTEE**

#### **TERMS OF REFERENCE**

- Review all course and program proposals for clarity, completeness, and adherence to procedures.
- 2. Confirm whether a change is minor or major.
- 3. Determine whether proposals are consistent with current academic policies.
- 4. Ensure all potentially impacted areas have been consulted.
- Approve minor course changes for publication in the calendar. Approve all other proposals for submission to CWC.

# **PROCEDURES**

- 1. Review all course and program proposals according to the Terms of Reference.
- 2. Proposals requiring revision, additional information, or further consultation will be returned to the proponent (with a copy to Faculty Council) with a brief description of any required or suggested changes. Revised proposals are to be resubmitted to Faculty Council and then the UEC Screening Subcommittee for further review. Minor editorial changes will be made at the discretion of the UEC Screening Subcommittee and communicated to the proponent and Faculty Council.
- After proposals have been approved by the UEC Screening Subcommittee, they will be posted for Campus-Wide Consultation.

Quorum will consist of four members. The committee will meet once a month or bi-weekly as required, at the discretion of the committee.

Implementation date: September 2014

# **COMPOSITION**

# Membership

- One UEC Chair
- Registrar (or designate)
- UEC Assistant
- UEC Faculty member\*
- UEC Advisor\*\*
- CFO/SBC representative

<sup>\*</sup> Two-year term, renewable. Please note that in the first year of this subcommittee, the UEC Faculty member will have a one-year term to ensure staggered rotation of members.

<sup>\*\*</sup>Two-year term, renewable.



# 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

Approved by Senate October 18, 2019

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<sup>\*</sup> 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>lt;sup>†</sup> Normally, the designate shall be appointed for a minimum of a one-year term to ensure continuity.

# AGENDA ITEM # 6.3.

Accordate Vice President Institutional Research and Integrated Planning for designations	nto)
<ul> <li>Associate Vice-President, Institutional Research and Integrated Planning (or designa</li> </ul>	ite)
<ul> <li>Associate Director, Program Development and Quality Assurance</li> </ul>	
<ul> <li>Director, Advising Centre</li> </ul>	
A destrict Acade a Command	
Administrative Support	
<ul> <li>UEC Assistant/Calendar Editor, Office of the Registrar</li> </ul>	
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# **UEC MEETING DATES AND AGENDA DEADLINES 2020/21**

UEC meetings generally take place in week 4 of the UFV meeting schedule, from **10 am to 12 pm**. All agenda exhibits must be submitted to the UEC office by **12 noon** on the deadline date.

Meeting Dates	Agenda Exhibit Deadline (12:00 pm)
October 2, 2020	September 23, 2020
October 30, 2020	October 21, 2020
November 27, 2020	November 18, 2020
December 18, 2020*	December 9, 2020
January 29, 2021	January 20, 2021
February 26, 2021	February 17, 2021
March 26, 2021	March 17, 2021
April 23, 2021	April 14, 2021
May 21, 2021	May 12, 2021
June 18, 2021	June 9, 2021

<sup>\*</sup>Please note that this meeting will take place in week 3 of the UFV meeting schedule.

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# **UNDERGRADUATE EDUCATION COMMITTEE MEMBERSHIP 2020-21**

AREA REPRESENTED	TERMS OF OFFICE	MEMBER
Voting Members		
Vice-Chair, Registrar (or designate)	Ongoing	David Johnston
9 faculty members, at least 2 from Senate	•	
Faculty (senator)	08-01-2018 to 07-31-2021	Gilmour Jope, Faculty of Access and Continuing Education
Faculty (senator)	08-01-2019 to 07-31-2022	Sven van de Wetering, Faculty of Social Science
Faculty (senator)	08-01-2019 to 07-31-2022	Shelley Stefan, Faculty of Humanities
Faculty (senator)	08-01-2018 to 07-31-2021	Amber Johnston, Faculty of Health Sciences
Faculty	08-01-2020 to 07-31-2022	Vacant
Faculty	08-01-2019 to 07-31-2021	Teresa Arroliga-Piper, Faculty of Humanities
Faculty (senator)	08-01-2019 to 07-31-2022	Jonathan Hughes, Faculty of Science
Faculty	08-01-2019 to 07-31-2021	Rashad Mammadov, Faculty of Humanities
Faculty	08-01-2019 to 07-31-2021	Samantha Pattridge, Faculty of Humanities
2 deans or associate deans		
Dean	08-01-2018 to 07-31-2021	Sue Brigden, Dean, Faculty of Access & Continuing Education
Dean	08-01-2018 to 07-31-2021	Linda Pardy, Associate Dean of Students
1 academic advisor	08-01-2020 to 07-31-2022	Bobby Jaswal, Student Services
1 staff	08-01-2020 to 07-31-2022	Kelly Guiaya, School of Social Work & Human Services
2 undergraduate students		
Student	08-01-2019 to 07-31-2021	Neeraj Kumar
Student	08-01-2020 to 07-31-2021	Tripat Sandhu (Senator)
Associate VP, Teaching and Learning (or designate)	Ongoing	Claire Hay (designate)
University Librarian (or designated librarian) (ex officio)	Ongoing	Martin Warkentin (designate)
Ex-Officio Non-Voting Members		
Provost & Vice-President, Academic (or designate)	Ongoing	Peter Geller (designate to July 31, 2021)
AVP, Research, Engagement & Graduate Studies (or designate)	Ongoing	Kirsten Robertson (designate)
Executive Director, International Education	Ongoing	David McGuire
Senior Advisor on Indigenous Affairs	Ongoing	Shirley Hardman
Manager, Enrolment Planning	Ongoing	Donna Alary
AVP, Institutional Research and Integrated Planning	Ongoing	Vladimir Dvoracek
Director, Advising Centre	Ongoing	Elaine Newman
Coordinator, Program Development & Quality Assurance	Ongoing	Bruce Kirkley
Administrative Support		
UEC Assistant/Calendar Editor, Office of the Registrar		Amanda Grimson

CURRENT MEMBERSHIP: 25 members - 17 voting members and 8 non-voting members