

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

Course Code and Number: GEOG 359		Number of Credits: 3 Course credit policy (105)													
Course Full Title: GIS Applications for Business Course Short Title: GIS Applications for Business															
Faculty: Faculty of Science		Department: Planning, Geography and Environmental Studies													
Calendar Description: <p>An introduction to desktop and web GIS for business operators in agriculture, real estate, insurance, and logistics to make informed decisions on their business resiliency in the face of climate change, support Indigenous businesses, and promote equity, diversity, and inclusion in their operations.</p> <p>Note: Field trips outside of class time may be required. Please refer to the department website for scheduling information.</p> <p>Note: Students with credit for GEOG 3000 cannot take this course for further credit.</p>															
Prerequisites (or NONE):		45 university-level credits.													
Corequisites (if applicable, or NONE):		none													
Pre/corequisites (if applicable, or NONE):		none													
Antirequisite Courses <i>(Cannot be taken for additional credit.)</i> Former course code/number: GEOG 3000 Cross-listed with: Equivalent course(s): <i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>		Course Details Special Topics course: No <i>(If yes, the course will be offered under different letter designations representing different topics.)</i> Directed Study course: No <i>(See policy 207 for more information.)</i> Grading System: Letter grades Delivery Mode: May be offered in multiple delivery modes Expected frequency: Summer only Maximum enrolment (for information only): 28													
Typical Structure of Instructional Hours <table border="1"> <tr> <td>Lecture/seminar</td> <td>15</td> </tr> <tr> <td>Tutorials/workshops</td> <td>10</td> </tr> <tr> <td>Supervised laboratory hours (computer lab)</td> <td>15</td> </tr> <tr> <td>Experiential (field trip)</td> <td>5</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>Total hours</td> <td>45</td> </tr> </table>		Lecture/seminar	15	Tutorials/workshops	10	Supervised laboratory hours (computer lab)	15	Experiential (field trip)	5			Total hours	45	Prior Learning Assessment and Recognition (PLAR) PLAR is available for this course.	
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Supervised laboratory hours (computer lab)	15														
Experiential (field trip)	5														
Total hours	45														
Scheduled Laboratory Hours Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		Transfer Credit <i>(See bctransferguide.ca.)</i> Transfer credit already exists: No Submit outline for (re)articulation: No <i>(If yes, fill in transfer credit form.)</i>													
Department approval		Date of meeting: August 24, 2023													
Faculty Council approval		Date of meeting: February 2, 2024													
Undergraduate Education Committee (UEC) approval		Date of meeting: March 1, 2024													

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

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

1. Create GIS in desktop and web environments that can be used by business operators and their customers to make informed business decisions.
2. Operate geospatial technologies in business applications.
3. Evaluate business sustainability and resilience through GIS techniques.
4. Apply scientific principles and processes behind climate change and natural disasters in guiding GIS models that seek to mitigate effects of climate change and natural disasters on business operations.
5. Identify current and emerging applications of GIS in business and agribusiness, including real estate, banking, insurance, asset management, logistics, and navigation.
6. Discuss how GIS can be used to understand and promote Indigenous perspectives in business operations in the Fraser Valley.
7. Explain how businesses can use GIS to promote equity, diversity, and inclusion in their operations.

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

Assignments:	30%	Quizzes/tests:	30%	Project:	40%
			%		%

Details:

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

Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.)*

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

Type	Author or description	Title and publication/access details	Year
1. Textbook	Richard L. Church (Author), Alan T. Murray (Author)	Measuring Up: The Business Case for GIS, Volume 3	2022
2. Textbook	Esri	Spatial Business: Competing and Leading with Location Intelligence	2020
3. Textbook	David DiBiase	Nature of Geographic Information: An Open Geospatial Textbook	2014
4. Textbook	James B. Pick	Geographic Information Systems in Business	2005
5. Article	Bosak, Keith, and Kathleen Schroeder.	Using geographic information systems (GIS) for gender and development	2005

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

Module 1: Introduction to GIS applications in business

- GIS applications in business – from geocoding to mapping business data in ArcGIS

Module 2: Geodemographics and customer targeting

- Customer analytics, site analysis, and network analysis for a safe hub for equity, diversity, and inclusion

Module 3: Sustainable businesses

- Sustainable growth through location intelligence - GIS applications in real estate, banking, and Indigenous businesses

Module 4: Risk analysis through GIS

- GIS analysis for natural disasters, other risks, and insurance – applications in the agribusiness sector

Module 5: Business spatial pattern and hotspot analysis

- Determining spatial patterns and hotspots of businesses

Module 6: Business operational efficiency through GIS

- Marketing through Interactive web maps and Improving business operational efficiency through ArcGIS Field Maps, Survey123, and dashboards

Module 7: GIS project – living lab based on sustainable development goals

- Making McCallum Centre a sustainable business