

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

Course Code and Number: GEOG 302		Number of Credits: 4 Course credit policy (105)																	
Course Full Title: River Geomorphology Course Short Title (if title exceeds 30 characters):																			
Faculty: Faculty of Social Sciences		Department (or program if no department): Geography and the Environment																	
Calendar Description: <p>Provides a comprehensive understanding of the processes responsible for shaping the river environment and the landforms that result from them. Emphasis is placed on understanding the theoretical basis of river geomorphology and the identification and formative processes of these landforms.</p> <p>Note: Field trips outside of class time will be required. Please refer to the department website for field trip scheduling information.</p>																			
Prerequisites (or NONE):		GEOG 201 or GEOG 202.																	
Corequisites (if applicable, or NONE):																			
Pre/corequisites (if applicable, or NONE):																			
Equivalent Courses (cannot be taken for additional credit) Former course code/number: Cross-listed with: Equivalent course(s): <i>Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.</i>		Transfer Credit Transfer credit already exists: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Transfer credit requested (OReg to submit to BCCAT): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (if yes, fill in transfer credit form) Resubmit revised outline for articulation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No To find out how this course transfers, see bctransferguide.ca .																	
Total Hours: 90 Typical structure of instructional hours: <table border="1"> <tr> <td>Lecture hours</td> <td>35</td> </tr> <tr> <td>Seminars/tutorials/workshops</td> <td></td> </tr> <tr> <td>Laboratory hours</td> <td>35</td> </tr> <tr> <td>Field experience hours</td> <td>20</td> </tr> <tr> <td>Experiential (practicum, internship, etc.)</td> <td></td> </tr> <tr> <td>Online learning activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td>Total</td> <td>90</td> </tr> </table>		Lecture hours	35	Seminars/tutorials/workshops		Laboratory hours	35	Field experience hours	20	Experiential (practicum, internship, etc.)		Online learning activities		Other contact hours:		Total	90	Special Topics Will the course be offered with different topics? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, different lettered courses may be taken for credit: <input type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit <i>Note: The specific topic will be recorded when offered.</i>	
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Total	90																		
		Maximum enrolment (for information only): 25 Expected frequency of course offerings (every semester, annually, every other year, etc.): once per year																	
Department / Program Head or Director: Steven Marsh		Date approved: May 2018																	
Faculty Council approval		Date approved: May 11, 2018																	
Campus-Wide Consultation (CWC)		Date of posting: n/a																	
Dean/Associate VP: Dr. Jacqueline Nolte		Date approved: May 11, 2018																	
Undergraduate Education Committee (UEC) approval		Date of meeting: September 28, 2018																	

Learning Outcomes

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

1. Demonstrate the theoretical basis for river processes.
2. Identify river processes and landforms in the field.
3. Demonstrate intermediate to advanced mastery of skills in landform identification and mapping, problem solving, and data presentation used by professional geoscientists.
4. Generate and interpret scientific data using current quantitative, qualitative and analytical methodologies and techniques.
5. Apply scientific and mathematical methods and models by formulating questions, analyzing results, developing arguments to support conclusions, and make scientifically-based decisions.
6. Critically analyze scientific literature.
7. Interpret current scientific concepts and gaps in knowledge in light of the historical development of the discipline.
8. Disseminate scientific observations in a written report.

Prior Learning Assessment and Recognition (PLAR)

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

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

Instructional methods include lectures, weekly laboratory sessions, and field trips.

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.

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. Bridge, J.S.	Rivers and Floodplains: Forms, Processes and Sedimentary Record.	<input type="checkbox"/>	Wiley-Blackwell	2003
2. Charlton, R.	Fundamentals of Fluvial Geomorphology	<input type="checkbox"/>	Routledge	2007
3. Knighton, D.	Fluvial Forms and Processes: A New Perspective	<input type="checkbox"/>	Oxford	1998
4. Robert, A.	River Processes: An Introduction to Fluvial Dynamics	<input type="checkbox"/>	Routledge	2014
5.		<input type="checkbox"/>		

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

There will be a modest fee for the field trip transportation and accomodation costs. All-weather clothing for field trips, camera, waterproof note book.

Typical Evaluation Methods and Weighting

Final exam:	35%	Assignments:	%	Midterm exam:	25%	Practicum:	%
Quizzes/tests:	%	Lab work:	25 %	Field experience:	%	Shop work:	%
Project/field trip report:	15%	Other:	%	Other:	%	Total:	100%

Details (if necessary):

Typical Course Content and Topics

Topics covered in this course may include:

1. History of Fluvial Geomorphology
2. Drainage Basins and Stream Networks
3. Open Channel Flow – basic fluid mechanics principles
4. Hydraulic Geometry
5. Sediment Erosion, Transport, and Deposition
6. Bedforms and Sedimentary Structures
7. Channel Planforms – Straight, Meandering, Wandering Gravel Bed, Braided, etc.
8. Application of Fluvial Geomorphology/Sedimentology to understanding environmental change