



UNIVERSITY OF CALGARY

SCHOOL OF ARCHITECTURE, PLANNING AND LANDSCAPE

Course Title: Landscape Ecology & Planning

Course Number: PLAN 600

Professor: Mathis Natvik mathis.natvik@ucalgary.ca
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Lecture Days: Wednesdays
Lecture Times: 09:00-12:30 Mountain Time
Class Location: PF 3160

Course Description:

This course will provide students with an understanding of concepts in ecology and landscape ecology that are relevant to planning and landscape architecture at urban and regional scales. Classes, field trip(s), and assignments will explore six subject areas including: principles of landscape ecology; landforms and hydrology; ecosystems and habitats of the Calgary region; ecological land classification; impacts and social ecological systems; and application of landscape ecology for land use management decisions and design. The assignments will assist in integrating course content in application to site specific and context specific environmental planning and ecological design issues found in planning and landscape architecture professional practice.

Course Learning Objectives

At the end of this course, students will be able to:

1. Understand landscape ecology principles
2. Identify basic ecological processes
3. Identify habitat and ecosystem types that occur in southern Alberta
4. Understand the criteria used in ecological land classification
5. Understand impacts on ecological processes and social ecological systems
6. Apply ecological concepts and processes in planning and design problem-solving

Learning Resources

Required readings and learning materials will be posted for access on the D2L site for this course. For the purposes of accessing D2L, you must make sure you are registered in the course with your U of C email address. The following texts are recommended but not required:

- Gail Hansen and Joseli Macedo, 2021. Urban Ecology for Citizens and Planners
https://ucalgary-primo.hosted.exlibrisgroup.com/permalink/f/1p0s7n7/TN_cdi_proquest_ebookcentral_EB_C6789525
- Calkins, Meg. (2012) The Sustainable Sites Handbook: A Complete Guide to the Principles, Strategies, and Best Practices for Sustainable Landscapes
- Marsh, Willam. (2010) Landscape Planning: Environmental Applications, 5th Ed.
- University of Arkansas Community Design Center. (2010) Low Impact Development: A Design Manual for Urban Areas.

Assessment and Evaluation Information

Attendance of all classes and field trips is expected and required unless there are medical or accommodation situations that arise. If you know you are not going to be able to attend a class or go on a field trip due to unexpected circumstances, please contact me by phone, text, or email preferably in advance of your absence if possible. If you are absent from two consecutive classes or field trips or fail to submit two consecutive assignments without contacting or advising the instructor of your situation you may be required to withdraw from the course.

Digital submission of assignments will be made via D2L or email, unless the instructor explicitly requested a hard copy or verbal presentation.

There will be no final exam. Participants will be evaluated on the basis of a series of course assignments as outlined in the course schedule. Written assignments are expected to be at the graduate level of written English consistent with the Faculty of Graduate Studies (FGS) guidelines available through the following link:

<http://www.ucalgary.ca/pubs/calendar/current/e-2.html>

Late assignments will not be accepted except on medical or compassionate grounds and unless there is a formal accommodation letter provided to the instructor at the beginning of the term. However, the instructor understands that sometimes, despite best intentions, plans and schedules don't work out. Therefore, course participants will be allowed one late assignment during the course. If you wish to exercise this option you must contact the instructor in advance to receive one extension, the period for which will be determined by your instructor based on your circumstances and will normally not be more than 1 to 3 days.

Course assignments are progressive – meaning each assignment is sequentially more complex and worth more. The grade assigned to each participant for the course will be based on the cumulative results of all assignments.

Course Assignment List & Values

Assignment	Title	Value
1	Ecological Land Classification	30%
2	Wildlife Corridors & Passages	35%
3	Ecological Design Precedent Study	35%
		Total 100%

Grading Scale

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range. Assignments will be evaluated by percentage grades, with their letter grade equivalents as shown.

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance
B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

Notes:

A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

Course Schedule*

Date	Topic	Assignments
Sept 7	Introduction to Landscape Ecology Temporal & Spatial Components of Ecosystems	
Sept 14	Ecosystems of Alberta Landforms and Hydrology of Alberta	
Sept 21	Overview of Field Trip Locations Ecological Land Classification System	<i>Assignment#1 issued</i>
Sept 28	Field Trip – various ecosystems in Calgary area	
October 3-7 – SAPL BLOCK WEEK – NO CLASSES		
Oct 12	Ecological Restoration Wildlife Corridors	<i>Assignment#2 issued</i> Assignment#1 Due
Oct 19	Stormwater Management Soils & Erosion Control	
Oct 26	Wildfire Ecology Fire Management in the Built Landscape	
Nov 2	Merging Ecology with Design	<i>Assignment#3 issued</i> Assignment#2 Due
Nov 7-11 – READING WEEK – NO CLASSES		
Nov 16	Novel Ecosystems Living Architecture (Green Roofs & Green Walls)	
Nov 23	Urban Forestry	
Nov 30		Assignment#3 – final group presentations
Dec 7		Assignment#3 – final group presentations

*Note: Dates, lectures may be subject to change.

Media and Recording in Learning Environments

Part 1

University Calendar: <https://www.ucalgary.ca/pubs/calendar/current/e-6.html>

Recording of lectures (other than audio recordings that are pre-arranged as part of an authorized accommodation) is not permitted. Students may not record any portion of a lecture, class discussion or course-related learning activity without the prior and explicit written permission of the course instructor or authorization from Student Accessibility Services. For any other use, whether by duplication, transcription, publication, sale or transfer of recordings, written approval must be obtained from the instructor for the specific use proposed. Any use other than that described above constitutes academic misconduct and may result in suspension or expulsion.

Part 2

The instructor may use media recordings to capture the delivery of a lecture. The instructor will notify all students and guests in the class that the event is being recorded. If a student or guest wants to take steps to protect privacy, and does not want to be recorded, the instructor will provide the individual (s) with an alternative means of participating and asking questions (e.g., passing written notes with questions). Students cannot be penalized for choosing not to be recorded in situations where participation is part of the course. Students must be offered other ways of earning participation credit that do not involve recording.

Any video-recording would be intended to only capture the instructor and the front of the classroom. Students/other participants would not necessarily be visible on video recordings.

University of Calgary Policies and Supports

ACADEMIC ACCOMMODATION

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>

ACADEMIC MISCONDUCT

Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when: (a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work, (b) parts of the work are taken from another source without reference to the original author, (c) the whole work (e.g., an essay) is copied from another source, and/or, (d) a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate

Calendar. For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

COPYRIGHT LEGISLATION:

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY:

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

UNIVERSITY STUDENT APPEALS OFFICE:

If a student has a concern about the course, academic matter, or a grade that they have been assigned, they must first communicate this concern with the instructor. If the concern cannot be resolved with the instructor, the student can proceed with an academic appeal, which normally begins with the Faculty. See: <https://ucalgary.ca/student-appeals/>

More student support and resources (e.g. safety and wellness) can be found here: <https://www.ucalgary.ca/registrar/registration/course-outlines>