

**School of Community and Regional Planning (SCARP)
University of British Columbia
DRAFT COURSE OUTLINE**

Course Number	PLAN 534
Course Credit(s)	1.0
Course Title	Introduction to Geographic Information Systems
Term	2018-2019 Winter Term 2
Dates	January 4th, 11th, 18th and 25th, 2019
Day	Friday
Time	

Instructor	Bill Gushue
Office	N/A
Telephone	N/A
Email	bgushue@urbansystems.ca
Office Hours	N/A

Short Course Description

This course introduces students to the theory, history and capabilities behind GIS, with customized laboratory exercises that incorporate urban design and planning themes. Once completed, students will have the necessary skills to utilize GIS analysis and presentation skills for other SCARP assignments.

Students who finish assignments early will have time to explore integrating various online data repositories (municipal data warehouses, provincial data warehouses, and open map services) with newly acquired GIS skills.

There are no prerequisites for this course, but familiarity with basic computer skills is strongly recommended.

Course Format

This course meets once a week for a 3 hour session in the Geography GIS Lab - Room 239. The course consists of 4 modules, each module having a 60 minute lecture / demonstration, and a 2 hour lab assignment. All course hours take place in the GIS lab. Lab assignments will be collected at the end of each session, graded, and returned the following week.

Course Overview, Content and Objectives

This course introduces students to the theory, history and capabilities behind GIS, with computer laboratory workshops and exercises that focus on the application of GIS technology in design and planning. It is intended as a course for students not formally exposed to GIS or related geomatics technologies who desire a baseline understanding of the technology, and an ability to create, view, analyze, manipulate and present spatial information. Emphasis will be placed on hands-on exercises that reinforce the concepts introduced in the lectures and demonstrations.

All assignments including the final assignment are weighted equally. Lecture topics and corresponding lab assignments are as follows:

Section 1 - Introduction to GIS Concepts, Definitions and History

Section 2 - Basic Data Editing and Geoprocessing (Spatial Analysis)

Section 3 - Cartographic Composition and Output Formats

Section 4 - Interoperability (exchange of data between systems) between GIS, CAD, Google Earth and other web mapping options

Learning Outcomes

This course aims to help students develop a basic understanding of what constitutes a GIS, understand the capabilities and limitations of GIS, and gain practical skills in data design, creation, storage, analysis and presentation. Students will be exposed to a broad range of topics required to understand GIS technology. The basic concepts, combined with practical skills in operating GIS software, will provide students with a foundation in spatial information administration, analysis and production. This foundation will help students better understand emerging trends, issues and technologies, or serve as a starting point for further development.

By the end of the course, students will have the necessary skills to incorporate GIS analysis and presentation skills into other projects and assignments for SCARP courses.

Additional Course Requirements

There are no additional course requirements or field trips.

Attendance

Attendance is mandatory for 1.0 credit courses.

Evaluation Criteria and Grading

80% Lab Exercises (4 assignments)

20% Class Participation & Attendance (students who arrive late will be penalized)

Required Readings and Videos

There is no assigned textbook for this class.

Recommended Readings

Recommended reading list will be handed out first day of class.

Course Schedule

Session 1 - Introduction to GIS Concepts, Definitions and History

Session 2 – Basic Data Editing and Geoprocessing (Spatial Analysis)

Session 3 – Cartographic Composition and Output Formats

Session 4 – Interoperability (exchange of data between systems) between GIS, CAD, Google Earth and other web mapping options

Special Needs

Please inform the course instructor as soon as possible, if you have special needs and require accommodation of any kind. Please visit <http://www.students.ubc.ca/access/> for more information on campus resources.

Academic Integrity

1 Assistance with the creation of a course syllabus is available through the Centre for Teaching, Learning and Technology, www.ctlt.ubc.ca Resources related to the development of assessable learning outcomes can be accessed through <http://ctlt.ubc.ca/resources/webliography/course-designdevelopment/> The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at

<http://calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0>.