

Syllabus – Fall 2019

Course and Instructor Information

Course Title: GIS Modeling of the Urban Environment [GEOG 5520]

Credits: 3 credits

Format: online

Prerequisites: none

Instructor: Dr. George Bentley

Email: george.bentley@uconn.edu

Office Hours: After the first day of classes, you should send all messages to the instructor at the above email address with questions.

Course Materials

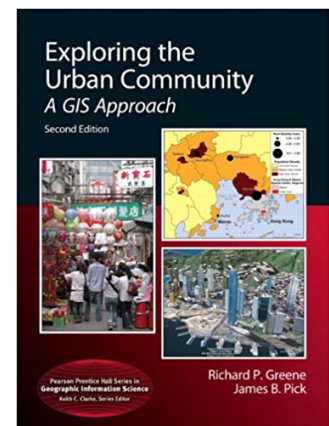
Required course materials should be obtained before the first day of class.

The text book is available through a local (e.g., UConn Bookstore) or online bookstore. For more information, see Textbooks and Materials in the Enrolled Students page on the UConn eCampus website.

Required text: Exploring the Urban Community: A GIS Approach, 2nd Ed.
Authors: Richard P. Greene and James B. Pick
Publisher: Prentice Hall College Division
ISBN-13: 978-0321751591
ISBN-10: 0321751590

This course was developed by Dr. Robert Cromley, Professor Emeritus in the Geography Department at the University of Connecticut.

All videos, images, charts, graphs not created by the instructor are used with the permission of the publisher or are in the public domain and cited under Fair Use practices.



Course Description

This course applies the tools of geographic information systems (GIS) to the study of the urban environment. GIS is used in many countries as a planning tool by urban and regional planners. Spatial arrangements and patterns, trends, relationships can be studied in an integrative manner using digital databases containing map layers and images of the urban environment. Students completing the course readings, exercises, and examinations should be able to use GIS to analysis urban systems, structure, growth, economic development, neighborhoods, and environmental issues.

Course Objectives

At the completion of this course, you will be able to:

- Demonstrate knowledge of basic characteristics of urban environments, their common social and physical structures, trends and issues
- Examine the aspects and processes of the urban environments at different scale using GIS tools
- Identify the structural features of cities in order to make analogies and compare them using the GIS environment

Course Outline

Your course will be conducted online in a series of sessions. It is assumed that it may take up to one week to complete the session by submitting the assignment in the end. Every session will include an open discussion of material covered, assignments, or questions about the course.

Course Evaluation and Grading

Your grade will be based on your performance on twelve exercise assignments, four discussions, a midterm exam, and a final exam.

Assignments and discussions are designed to connect the content areas associated with readings and lectures to different geographic methods, forms of spatial analysis, and GIS techniques. You will also be asked to reflect on several major issues affecting urban areas. In doing so, you will interpret spatial patterns and trends within and between urban areas and receive a better understanding of contemporary urban geography. This active learning approach to the modeling and study of the city will enhance your analytical skill set for the job market.

Exercise assignments: There are 12 assignments associated with 12 course sessions. Each assignment is worth 15 points. The step-by-step instructions for eleven assignments are found at the end of the chapter assigned in the corresponding course session. These eleven assignments include both a Google Earth exercise and an ArcGIS 10 exercise, designed to complement each other. You must download and install Google Earth and acquire (from the instructor) and install ArcGIS 10 software before you can attempt any assignment. Instructions for the twelfth assignment on geocoding (Assignment 6) can be downloaded from the assignment tool associated with Session 6. This assignment includes using online geocoding services as well as Google Earth and ArcGIS 10. (40%)

All assignments are due at the specified time. Late assignments will be accepted with penalty; see Due Dates and Late Policy.

Discussions: There are four discussions that have you reflect on changes in public policy with respect to the US Census and different urban issues. All discussions require essay format answers. Discussions are evaluated with respect to the veracity, validity and thoughtfulness of the response. (5%)

Exams: There will be a mid-term and a final exam. The final exam has both a hand-on component as well as a written test. Each exam consists of definitions and essay questions taken from study review guides available for both the mid-term and final exam. (55%)

Anyone who will miss an exam must notify the instructor **in advance** of the exam date; see Due Dates and Late Policy. (55%)

Grade breakdown:

Grade Item	Total Points	Grade Percentage
Assignments (12)	180 points	40%
Discussions (4)	40 points	5%
Midterm Exam	110 points	25%
Final Exam	160 points	30%

Grading Scale:

Graduate			Undergraduate		
Grade	Letter Grade	GPA	Grade	Letter Grade	GPA
97-100	A+	4.3			
93-96	A	4.0	93-100	A	4.0
90-92	A-	3.7	90-92	A-	3.7
87-89	B+	3.3	87-89	B+	3.3
83-86	B	3.0	83-86	B	3.0
80-82	B-	2.7	80-82	B-	2.7
77-79	C+	2.3	77-79	C+	2.3
73-76	C	2.0	73-76	C	2.0
70-72	C-	1.7	70-72	C-	1.7
67-69	D+	1.3	67-69	D+	1.3
63-66	D	1.0	63-66	D	1.0
60-62	D-	0.7	60-62	D-	0.7
<60	F	0.0	<60	F	0.0

Due dates and Late policy:

All course due dates are identified in the Course Schedule. Deadlines are based on Eastern Standard Time; if you are in a different time zone, please adjust your submittal times accordingly.

Assignments handed in late will be penalized by a 10% deduction per day up to three days past the due date, unless you have contacted the instructor and made special arrangements. No assignments will be accepted for credit after three days past the due date. Exceptions to this rule require instructor approval and must be made prior to the assignment's due date.

Make-up exams are only scheduled only in the event of personal illness or extraordinary circumstances. If you know you will miss an exam due to a scheduled conflict (e.g., conference, University event), you must contact the instructor no later than two weeks prior to the scheduled exam date to schedule a make-up exam.

Feedback and Grades:

I will make every effort to provide feedback and grades in a timely manner. All assignments will be graded within one week of their due date. Exams will be graded within one week of the due date. Use the MyGrades tool in HuskyCT to keep track of your performance in the course.

Email Communication:

Please identify yourself in the heading of your email by topic, name, and class. The heading should read along the lines of: A question from John Doe, GEOG 5520. I will make every attempt to answer emails received between Monday through Friday, within 24-48 hours. All emails should be well-written and professional.

Course Calendar

	Dates	Topic	Reading	Activity	Due Date and Time
Session 1	Aug 26 – Sept 1	The Display of the Urban Environment	Chapter 1	Assignment 1	Sept 1, 11:59pm
Session 2	Sept 2 – Sept 8	Defining the Metropolis	Chapter 2	Assignment 2 Discussion 1	Sept 8, 11:59pm
Session 3	Sept 9 – Sept 15	The Internal Structure of Cities	Chapter 3	Assignment 3	Sept 15, 11:59pm
Session 4	Sept 16 – Sept 22	Systems of Cities	Chapter 4	Assignment 4	Sept 22, 11:59pm
Session 5	Sept 23 – Sept 29	Urban Neighborhoods	Chapter 5	Assignment 5	Sept 29, 11:59pm
Session 6	Sept 30 – Oct 6	Geocoding		Assignment 6 Discussion 2	Oct 6, 11:59pm
Session 7	Oct 7 – Oct 13	Migration and Residential Mobility	Chapter 6	Assignment 7	Oct 13, 11:59pm
Midterm Exam	Oct 14 – Oct 20			Online (HuskyCT)	Oct 20, 11:59pm
Session 8	Oct 21 – Oct 27	Race, Ethnicity, Gender and Poverty	Chapter 7	Assignment 8	Oct 27, 11:59pm
Session 9	Oct 28 – Nov 3	Industrial Location and Cities	Chapter 8	Assignment 9 Discussion 3	Nov 3, 11:59pm
Session 10	Nov 4 – Nov 10	Urban Core and Edge City Contrasts	Chapter 9	Assignment 10	Nov 10, 11:59pm
Session 11	Nov 11 – Nov 17	Urban Environmental Problems and Issues	Chapter 10	Assignment 11 Discussion 4	Nov 17, 11:59pm
Session 12	Nov 18 – Nov 24	Urban and Regional Planning	Chapter 11	Assignment 12	Dec 8, 11:59pm
Thanksgiving Recess	Nov 25 – Nov 29				
Session 12 Cont.	Dec 2 – Dec 8	Urban and Regional Planning	Chapter 11	Assignment 12	Dec 8, 11:59pm
Final Exam	Dec 9 – Dec 15			Online (HuskyCT)	Dec 15, 11:59pm

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. This section provides a brief overview of these important standards, policies and resources.

Student Code:

You are responsible for acting in accordance with the [University of Connecticut's Student Code](#). Review and become familiar with these expectations. In particular, make sure you have read the section that applies to you on Academic Integrity:

- [Academic Integrity in Undergraduate Education and Research](#)
- [Academic Integrity in Graduate Education and Research](#)

Cheating and plagiarism are taken very seriously at the University of Connecticut. As a student, it is your responsibility to avoid plagiarism. If you need more information about the subject of plagiarism, use the following resources:

- [Plagiarism: How to Recognize it and How to Avoid It](#)
- [University of Connecticut Libraries' Student Instruction](#) (includes research, citing and writing resources)

Copyright:

Copyrighted materials within the course are only for the use of students enrolled in the course for purposes associated with this course and may not be retained or further disseminated.

Netiquette and Communication:

At all times, course communication with fellow students and the instructor are to be professional and courteous. It is expected that you proofread all your written communication, including discussion posts, assignment submissions, and mail messages. If you are new to online learning or need a netiquette refresher, please look at this guide titled, [The Core Rules of Netiquette](#).

Adding or Dropping a Course:

If you should decide to add or drop a course, there are official procedures to follow:

- Matriculated students should add or drop a course through the [Student Administration System](#).
- Non-degree students should refer to [Non-Degree Add/Drop Information](#) located on the registrar's website.

You must officially drop a course to avoid receiving an "F" on your permanent transcript. Simply discontinuing class or informing the instructor you want to drop does not constitute an official drop of the course. For more information, refer to the:

- [Undergraduate Catalog](#)
- [Graduate Catalog](#)

Academic Calendar:

The University's [Academic Calendar](#) contains important semester dates.

Academic Support Resources:

[Technology and Academic Help](#) provides a guide to technical and academic assistance.

Students with Disabilities:

Students needing special accommodations should work with the [University's Center for Students with Disabilities](#) (CSD). You may contact CSD by calling (860) 486-2020 or by emailing csd@uconn.edu. If your request for accommodation is approved, CSD will send an accommodation letter directly to your instructor(s) so that special arrangements can be made. (Note: Student requests for accommodation must be filed each semester.)

Blackboard measures and evaluates accessibility using two sets of standards: WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government.” (retrieved March 24, 2013 from Blackboard's website)

Policy against Discrimination, Harassment and Inappropriate Romantic Relationships:

The University is committed to maintaining an environment free of discrimination or discriminatory harassment directed toward any person or group within its community – students, employees, or visitors. Academic and professional excellence can flourish only when each member of our community is assured an atmosphere of mutual respect. All members of the University community are responsible for the maintenance of an academic and work environment in which people are free to learn and work without fear of discrimination or discriminatory harassment. In addition, inappropriate romantic relationships can undermine the University's mission when those in positions of authority abuse or appear to abuse their authority. To that end, and in accordance with federal and state law, the University prohibits discrimination and discriminatory harassment, as well as inappropriate romantic relationships, and such behavior will be met with appropriate disciplinary action, up to and including dismissal from the University. Refer to the [Policy against Discrimination, Harassment and Inappropriate Romantic Relationships](#) for more information.

Sexual Assault Reporting Policy:

To protect the campus community, all non-confidential University employees (including faculty) are required to report assaults they witness or are told about to the [Office of Diversity & Equity](#) under the [Sexual Assault Response Policy](#). The University takes all reports with the utmost seriousness. Please be aware that while the information you provide will remain private, it will not be confidential and will be shared with University officials who can help. Refer to the [Sexual Assault Reporting Policy](#) for more information.

Software Requirements and Technical Help

The technical requirements for this course include:

- ArcGIS
- Google Earth
- word processing software
- [Adobe Acrobat Reader](#)
- internet access

This course is completely facilitated online using the learning management platform [HuskyCT](#). If you have difficulty accessing HuskyCT, students have access to the in person/live person support options available during regular business hours through the [Help Center](#). Students also have [24x7 Course Support](#) including access to live chat, phone, and support documents.

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments
- Save files in commonly used word processing program formats
- Copy and paste text, graphics or hyperlinks
- Use presentation software to create and share information
- Work within two or more browser windows simultaneously

- Open and access PDF files

University students are expected to demonstrate competency in Computer Technology. Explore the [Computer Technology Competencies](#) page for more information.

Evaluation of the Course

Students will be provided an opportunity to evaluate instruction in this course using the University's standard procedures, which are administered by the [Office of Institutional Research and Effectiveness](#) (OIRE). Additional informal formative surveys may also be administered within the course as an optional evaluation tool.