Course	GISC 6381 501: Geographic Information Systems Fundamentals
Instructor	Yongwan Chun
TA	Fernando J. Mendoza-Jara
Term	Spring 2013
Meetings	Wednesday 7:00pm – 9:45pm, GR 3.602

Contact Information

Office Phone	972-883-4719
Office Location	GR 3.208
Email Address	ywchun@utdallas.edu
Office Hours	Tuesday 1:30pm – 3:30pm or by appointment
Other Information	Email contacts are strongly preferred. I do not read eLearning emails so contact me through my UT Dallas email.

TA Contact Information

Office Phone	972-883-2908
Office Location	GR 3.414-005
Email Address	fermenja@utdallas.edu
Office Hours	Monday 4:00pm – 6:00pm or by appointment
Other Information	Email contacts are strongly preferred.

General Course Information

Pre-requisites, Co-requisites, & other restriction	There are no pre-requisites and co-requisites. However, students are expected to have competence in Windows operating systems (e.g., Windows 7) and other computing skills such as word processing, spreadsheets, and internet usage.
Course description	This course examines in detail the fundamental of Geographic Information Systems (GIS) and their applications. The course emphasizes the concepts needed to use GIS correctly and effectively for manipulating, querying, analyzing, and visualizing spatial-based data. It also develops basic proficiency in industry-standard GIS software usage for analyzing spatial patterns in social, economic, environmental and geologic data, and for generating cartographic output from the analysis. The course will comprise both lecture and lab exercises. The lab exercises will focus on the use of ArcGIS 10, which is widely adopted GIS software. ArcGIS will be available in the GIS labs in Cecil H. Green Hall (The software will **NOT** be available in the university's McDermott Microcomputer lab).
Learning Outcomes	Upon completing this class, students will be able to: • Understand the fundamental concepts of geographic

information systems and their differences from other types of information systems.
- Utilize modern industry-standard GIS software for conducting basic GIS analyses and producing cartographic output
- Conduct studies typically carried out in GIS including site selection, analysis of spatial/temporal processes, geocoding and point pattern analysis, and corridor studies.

Required Texts & materials

Longley, Goodchild, Maguire, and Rhind, 2011, *Geographic Information Systems & Science*, 3rd edition, John Wiley & Sons, ISBN: 978-0-470-72144-5 [L]

Ormsby, Napoleon, Burke, Groessl, and Bowden, 2010, *Getting to Know ArcGIS (for ArcGIS 10)*, ESRI Press, ISBN: 978-1-58948-260-9 [O]

Reading Materials

Additional reading materials may be distributed through eLearning or email.

(Tentative) Assignments & Academic Calendar

Week	Date	Topics	Reading
1	1/16	Introduction: What is GIS? Lab1: Introduction to ArcMap	[**L**ongley] Ch1-2 [**O**rmsby] Ch3
2	1/23	Representing Geography Lab2: Introduction to ArcCatalog	[L] Ch3 [O] Ch4
3	1/30	GIS software/GIS data models I Lab3: Display GIS data	[L] Ch7/8 [O] Ch5
4	2/06	GIS data models II Lab4: Classification/Labeling features	[L] Ch8 [O] Ch6/7
5	2/13	Working with attributes Lab5: Working with attributes	[L] Ch10 [O] Ch8/9
6	2/20	GIS Analysis I Lab6: GIS Analysis I	[L] Ch14 [O] Ch10/11
7	2/27	**Midterm exam**	
8	3/06	GIS Analysis II Lab7: GIS Analysis II	[L] Ch15 [O] Ch12
9	3/13	**Spring break (no class)**	
10	3/20	Georeferencing Lab8: Projection	[L] Ch5 [O] Ch13
11	3/27	GIS Data collection Lab9: Creating features	[L] Ch9 [O] Ch14/15
12	4/03	Surface Analysis Lab10: Editing features/Geocoding	[L] Ch15.3 [O] Ch16/17

13	4/10	**Take home assignment (no classroom meeting)**	
14	4/17	Cartography and map production Lab11: Creating maps	[L] Ch12 [O] Ch18/19
15	4/24	Spatial modeling Lab12: Modeling	[L] Ch16 [O] Ch20
16	5/01	**Final exam**	

* Additional reading materials may be provided
** This schedule is subject to change

Course Policies

Grading (credit) Criteria	Lab assignments: 30% Midterm exam: 25% Final exam: 30% Take home assignment: 5% Quizzes (including pop quizzes): 5% Class attendance and participation: 5%
Make-up Exams	No make-up exam and/or project will be given without a legitimate excuse accompanied by proper formal documentation (e.g., a doctor's excuse).
Extra Credit	Might be given to optional lab assignments.
Late Work	Late submission will be penalized for 10 % per day being late. Late submission after one week since the due date will not be graded.
Class Attendance	Class attendance is mandatory and will be taken in various forms including in-class quiz. Students are expected to arrive to class on time and to participate in class discussion properly and actively.
Classroom Citizenship	Students arriving to a class session after it has begun are expected to enter quietly and take a seat in the least disruptive matter: students leaving a class session early are expected to do so in the least disruptive manner. Students are expected to display a positive attitude toward learning by conducting themselves with civility, respect for others (e.g., sharing thoughts and actively listening to the thoughts and comments of peers and the instructor), and general good, courteous behavior, including not engaging in cell phone (which should be turned off), personal movies/TV and personal newspaper (or other reading materials) usage, and not participating in social discussion groups during class time.

Note: Students must read other syllabus policies (including plagiarism, disability service, religious holydays, and email use), which are available on http://provost.utdallas.edu/syllabus-policies/. There descriptions/timelines are subject to change at the discretion of the instructor.