

Course Syllabus

GISC 4380: Spatial Concepts and Organization

Fall 2016

Wednesdays: 4-6:45pm

Classroom: GR 3.206

Professor Contact Information

Dr. May Yuan

myuan@utdallas.edu

Office: GR 3.108C

The carrying of a concealed handgun is prohibited in this office.

Office Phone: 972-883-6284

Office Hours: Tuesdays 2-4 pm or by appointments

TA Contact Information

Yan-Ting Liao

yx1159130@utdallas.edu

Office: GR 3.414

Office Hours: Fridays 2-4pm or by appointments

Course Description

The course provides a fundamental understanding of spatial processes, concepts, and theories that explain spatial patterns in physical and human environments. In the age of Big Data, our ability to elicit and interpret patterns is becoming increasingly important. This course will explore issues and analytical methods related to Spatial Big Data.

Student Learning Objectives/Outcomes

1. Knowledge: define spatial concepts, spatial organizations, spatial patterns, and spatial processes, as well as related methods and theories.
 2. Comprehension: compare spatial patterns, relate patterns to processes, and spatially contextualize patterns and processes for proper interpretations in application domains
 3. Application: develop methods or workflows to elicit spatial patterns, processes, and implications in real-world problems.
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Reading assignments will be provided at elearning.

Course Plan (subject to modifications)

Date	Topics
24-Aug	Introduction to Spatial Concepts and Organizations
31-Aug	Geographic Abstractions and Models
7-Sept	Landforms and Geomorphic Systems

14-Sept	Weather and Climate Systems
21-Sept	Biological Systems
28-Sept	Sites and 3D modeling (guest lecture: Arlo McKee)
5-Oct	Transport Systems
12-Oct	City and Urban Systems
19-Oct	Exam One
26-Oct	Time Geography
2-Nov	Spatial and Social Networks
9-Nov	Spatial Network Lab
16-Nov	Flows and Spatial Dynamics
23-Nov	Thanksgiving break. No class.
30-Nov	Exam Two
7-Dec	Class Report Due (early submission encouraged)

Grading Policy

No Curved

93-100 points = A; 90-92 points = A-
87-89 points = B+; 83-86 points = B; 80-82 points = B-
77-79 points = C+; 73-76 points = C; 70-72 points = C-
67-69 points = D+; 63-66 points = D; 60-62 points = D-
59 and below = F

- Class responses (10%): At the beginning of each class, we will have 15 minutes on “what do you see, and what do you wonder” and you will enter your responses on elearning. Creative thoughts that extend your prior knowledge and imaginations are encouraged.
- Two exams: (40%): Exams are not accumulative. Contents and formats will be discussed in class.
- Lab exercises/projects (40%): computer labs will be given in class to provide hands-on experiences.
- Class Report (10%): A summary report of all topics discussed in the class with the following format for each topic:
 - Date: Topic
 - What are the key spatial concepts and organizations discussed?
 - How do spatial processes relate to spatial patterns?
 - How applicable are the conceptual framework of spatial patterns and processes to other domains?

Bonus: one grade up based on discussions and participation in class. That is, you will receive one grade higher than the grade from the total points you earn in the class.

Course & Instructor Policies

Class attendance is expected. No make-up exams or assignments except for medical reasons, family emergencies or official university responsibilities. Class materials will be distributed on our class elearning website. All assignments should be submitted to the class elearning site. There will be no paper handouts and submissions in the class.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

UT Dallas Policies on Carry of Concealed Handguns is available at
<http://www.utdallas.edu/campuscarry/policy.pdf>

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.