GTECH 71000
Concepts and Theories in Geoinformatics
Fall 2017

HN 1090B, Monday, 5:35 – 8:15 PM

Instructor: Shipeng Sun **Class room**: HN 1090B-2
Office: HN 1043 **Office hours**: M 4-5pm, Tu 11-12pm, W 3-5pm
E-M ail: TBD **Phone**: TBD

Course Description

In this course, we will introduce the theoretical foundations for the concepts covered in GTECH 70900, which is a co-requisite for this course. The course does not have a corresponding lab, as the practical application of the concepts taught here will be covered in GTECH 70900. In the second part of each session, a student will present a research paper related to the session's topic, followed by a discussion. The paper presentations will be assigned in the first meeting. Moreover, there will be a weekly reading assignment, for which each student has to turn in a short abstract and three questions for discussion in class.

Textbook

There is no required textbook for this class. Instead, we will be reading and discussing seminal literature on the respective topics. Detailed information about the literature will be available at the course site on Blackboard at least one week before the lecture.

Goals

The goal of GTECH 7100 is to introduce you to a range of scientific concepts and theoretical issues unpinning Geoinformatics and GIScience as opposed to GISystems.

Objectives

By the end of the course you are expected to be familiar with core concepts of geography, Geoinformatics, and GIScience such as location, place, process, event, and spatial autocorrelation. Moreover, you will learn about the theoretical foundations of tools such as spatial databases and geo web services. The preliminary goal of this course is to lay the theoretical and conceptual foundations for specialized GIS courses.

Outcomes

By the end of this course, you will be able to read and digest the contents of current Geoinformatics and GIScience journals. You will become adept at discerning disciplinary influences and will have practiced discussing contemporary topics in Geoinformatics and GIScience.

Pre-/Corequisites

GTECH 70900 – Introduction to Geographic Information Systems

Criteria for evaluation

The course does not grade on a curve. If many of you get good grades, great! Ideally, all can have 100 points! If many have mediocre grades, so be it, it will be disappointing but an incentive to do better.

Final evaluation will be based on the following breakdown:

Abstracts and questions	20%
Presentation	20%
Participation in class	20% (mere physical presence does not suffice!)
Midterm	20%
Final exam	20%

Incomplete (IN) and Credit/No-Credit (CR/NC) grades

A final grade of IN (incomplete) will not be given except under the most extraordinary, and documented, circumstances. CR/NC is not available to students enrolled in GTECH 71000.

Course Policies

Electronics in the classroom

Electronic recording devices are allowed during lectures. All other personal electronics should be turned off before coming into the classroom. This includes cell and smart phones. Computers may be used for taking notes only, and if you use them for activities not related to classroom content (e mail, Facebook chats, surfing the Internet…), you will be asked gently, but firmly, to turn them off.

Course Website

Web-enhancement in the context of this course means that everything pertaining to this course will be communicated through BlackBoard. You are required to check the BlackBoard course site on a daily basis. All   changes to the syllabus will be announced on the course home page. All lecture materials are accessible   through BlackBoard, and this is also the place where you upload your assignments. Your exams and other assignments will be graded based on what you have uploaded to BlackBoard and this is where you will find your grades and may access course statistics that help you to assess your standing at any given time.

Communication

All email messages about this course should include GTECH 71000 in the subject line and be signed with your full name as it appears in CUNYfirst.

Participation

Attendance is crucial. Assuming that the class-learning environment is active learning, adherence to protocols and the course timetable is very important. Lateness in arriving at class will not be tolerated. Class participation   includes timely attendance and participation in organized class discussions, accomplishments of in-class tasks, and preparation of the reading assignments.

Hunter College Policy on Academic Integrity

Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

ADA Policy

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772-4857 or (212) 650-3230.

Hunter College Policy on Sexual Misconduct

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

   a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).
   b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or-212-650-3262) or Colleen Barry (colfeen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link: http:llwww.cuny.edu/about!administrationloffices/Ja/Policv-on-SexualMisconduct-12-1-14-with-links.pdf

Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice. This syllabus is subject to updates. Changes will be announced in class and on Blackboard, which you are expected to check regularly during the semester.

Tentative Schedule

Week	Date	Topic
1	08/28/17	Introduction
2	09/04/17	*No class – Labor Day*
3	09/11/17	Foundational concepts of Geoinformatics
4	09/18/17	Data capture and acquisition
5	09/25/17	Design aspects
6	10/02/17	Programming and development
7	10/09/17	*No class – CUNY holiday*
8	10/16/17	Computing platforms (the cloud, servers, personal computers, mobile devices, etc.)
9	10/23/17	Analytics and modeling
10	10/30/17	Midterm
11	11/06/17	Geocomputation
12	11/13/17	Domain-specific Applications
13	11/20/17	Cartography and visualization
14	11/27/17	Program management (human resources, economics, project management, etc.)
15	12/04/17	Broader Societal Concerns and Implications
16	12/11/17	Review
17	12/18/17	Final exam