

GEOG 4518/5518 Mobile GIS Syllabus

Course and Instructor Information

Course Title: GEOG 4518/5518 Mobile GIS

Credits: 3

Course format: Online

Prerequisites: GEOG 5518 is not open for credit to students who have passed GEOG 4518. It is strongly suggested that students are familiar with at least one GIS platform (e.g., ArcMap, ArcGIS Pro, QGIS) before taking the class.

Professor: Xiang “Peter” Chen

Email: peter.chen@uconn.edu

Office: AUST 431

In-person office hours: Mon/Wed 12:05-1 PM

Online office hours: By appointment only

Online meeting time:

This is an asynchronous online course, meaning we don’t have regular meetings. However, if you have questions, feel free to reach out by email or schedule an online meeting, as below.

If you have questions:

Email peter.chen@uconn.edu anytime.

If you need an online meeting:

Email peter.chen@uconn.edu. When you send an email, please specify your preferred meeting time (ASAP, morning, afternoon, and/or evening). The instructor can meet even in the late evening (6-10 PM) and will try his best to accommodate the students’ schedule.

Meeting link: <https://uconn-cmr.webex.com/meet/xic19022>

Course Description

Mobile GIS is taking Geographic Information Systems (GIS) out of the office and into the field. A mobile GIS (e.g., GPS, laptop computer, smartphone) allows the capture, manipulation, and analysis of geospatial data in the field. This course introduces concepts and techniques of mobile GIS from two different perspectives: a human perspective and a system perspective. From a human perspective, the use and applications of the mobile technology are inseparable from human movement. The course will first introduce fundamental concepts and methods (e.g., time geography, GPS tracking) of analyzing human mobility and activity data. From a system perspective, recent implementations of geospatial data are integrated with the responsive web design (RWD), a cutting-edge web development strategy that is compatible with both desktop and mobile devices. The course will introduce and practice basic web programming and development techniques using RWD. To promote the equal access to web and mobile mapping technology, the course ensures that all GIS mapping applications can be opened, debugged or further developed in Windows, Mac OSX, or mobile platforms, and all the relevant services and data are either open source or free to use, as guided by standards of the Open Geospatial Consortium (OGC).

ArcGIS Online and QGIS will be used interchangeably in the class.

Course Materials

Required Textbook: There is no required textbook for this course. All the required reading materials will be posted on the course website.

Course Website: The course website is accessible through UCONN HuskyCT [<https://huskyct.uconn.edu/>]. Materials for this course, including syllabus, reading materials, lecture notes, and lab exercises, will be available on the course website.

Course Format

The course is **fully online** without regular meeting times. Classes will be lab-based and the progress will depend on the learning curve of the students. Lab exercises focus on solving practical questions or building GIS applications. Students are expected to participate in all class activities. Failure to participate may affect the final grade. Students are strongly encouraged to ask questions via Emails or on Discussion Board.

Course Grading

Point Accumulation	
Assignments	Percentage
Lab Assignments (x10)	80%
Final Project	20%
TOTAL	100%

Grade Scale	
Percentage	Grade
93+	A
90–92.9	A-
87–89.9	B+
83–86.9	B
80–82.9	B-
77–79.9	C+
73–76.9	C
70–72.9	C-
67–69.9	D+
60–66.9	D
Below 60	F

Course Policies

- **E-Mail Correspondence:** In all e-mails to the instructor, in the “Subject Line,” **list the course**. Also, be sure that your name is somewhere in the email and on any attachments.
- **Lab Policies:** Lab assignments must be completed individually. The exchange of data and files is strictly prohibited and is considered to be plagiarism.
- **Work Submission:** The assigned work will be posted on HuskyCT under Learning Modules. Work must be received by the due date **by 11:59 PM EST**. Late assignments will be given a point reduction. **The deduction is by 20% for each day after due. Lab submission 3 days past due will not be accepted** except under special circumstances.
- **Exams:** The course does not have any exam components.
- **Final Project:** A key component of this class will be a final project on which each student will work independently. The purpose of the project is to use mobile GIS to answer a practical question that can only be, or is best answered using mobile GIS approaches. Students will first develop a project idea that will define the question to be addressed along with their approaches. Then, students will collect their own data, perform GIS development, and present the product in class. The project guidelines will be revealed later in class. **Graduate students are expected to complete extra work in the final project.**

Code of Academic Misconduct

Acts of academic misconduct (including cheating on exams, submitting plagiarized exercises, providing inaccurate information about class absences, attempting to influence a grade by means beyond academic performance) will be handled according to the guidelines set forward by the *Student Conduct Code*, which can be found at <http://community.uconn.edu>. Consequences of misconduct include one or more of the following: a score of zero on the exam or assignment, a grade of F for the course, even possibility expulsion from the university.

Course Schedule

The following course outline is **subject to change**. The latest schedule will be available on HuskyCT.

Date	Topic	Lab	Due*
Week 1	QGIS Part 1: Introducing QGIS	Lab 1: Introducing QGIS	Week 3
Week 2	QGIS Part 2: Mapping in QGIS	Lab 2: Mapping in QGIS	Week 4
Week 3	QGIS Part 3: Data Editing in QGIS	Lab 3: Mapping COVID19	Week 5
Week 4	Quick Map Services and GPS Tracking	Lab 4: GPS Tracking	Week 6
Week 5	GPS Applications	Lab 5: Discussion on GPS Studies	Week 7
Week 6	Modeling Activity Space	Lab 6: Modeling Food Activity Space	Week 8
Week 7	Web Mapping	Lab7: Web Mapping	Week 9
Week 8	App Development	Lab 8: App Development: My Favorite Places	Week 10
Week 9	Experience Builder - Part 1	Lab 9: Experience Builder - Part 1	Week 11
Week 10	Experience Builder - Part 2	Lab 10: Experience Builder - Part 2	Week 12
Weeks 11-15	Final Project (No Exam)		May 5

* Each homework is due on Monday 11:59 PM EST of the given week.