

QTM 550: Quantitative Sciences Project

Contact Hours: Two 1.25-hour or one 2.5-hour session weekly plus an average of 50 minutes of meeting time to discuss projects with faculty outside of class. In addition, there will be 4.5 hours of regular, out-of-class work required as preparation for in-class work

Credit Hours: 4

Prerequisites: QTM 540 (Communication)

Instructor:	Xxx
Semester	Spring 20xx
Meeting Time and Place:	xxx
Office:	xxx
Office Hours:	xxx
Email/Contact:	xxx
Course Website:	xxx
TA:	xxx

COURSE DESCRIPTION

QTM 550: Quantitative Sciences Capstone provides QTM master's students their first opportunity to apply their new skills to a real problem of their choosing. Students will organize into teams of four and identify a question or problem they wish to answer. All projects will be data-driven and ultimately yield both a project report and oral presentation. Because of the collaborative nature of the project, all students are required to contribute equally in the joint effort. This class is a critical opportunity for the master's students to hone their skills and prepare for their culminating capstone research experience.

ADMINISTRATIVE POLICIES

Email policy. We will use the course's Canvas website for all group interactions outside of our weekly meeting hour. That way, any questions or comments students have can be viewed and shared among the whole group.

Office hours. TBA

DISABILITY ACCOMMODATIONS

Emory University is committed under the Americans with Disabilities Act and its Amendments and Section 504 of the Rehabilitation Act to providing appropriate accommodations to individuals with documented disabilities. If you have a disability-related need for reasonable academic adjustments in this course, provide the instructor(s) with an accommodation notification letter from Access, Disabilities Services and Resources office. Students are expected to give two weeks-notice of the need for accommodations. If you need immediate accommodations or physical access, please arrange to meet with instructor(s) as soon as your accommodations have been finalized. Students requiring any academic accommodation should consult with the Office of Disability services (<http://www.ods.emory.edu/>) and discuss the issue with the professor within the first week of class.

ACADEMIC INTEGRITY

The honor code is in effect throughout the semester. By taking this course, you affirm that it is a violation of the code to cheat on exams, to plagiarize, to deviate from the teacher's instructions about collaboration on work that is submitted for grades, to give false information to a faculty member, and to undertake any other form of academic misconduct. You agree that the teacher is entitled to move you to another seat during examinations, without explanation. You also affirm that if you witness others violating the code you have a duty to report them to the honor council:

<http://catalog.college.emory.edu/academic/policies-regulations/honor-code.html>

GRADING AND EVALUATION

Evaluation of the course will be based on three components:

- 30% Individual grade, decided by the professor, based on the perceived effort, participation and engagement of the individual student, as judged by interaction during the weekly meeting, on Canvas, and more generally throughout the development of the project.
- 40% Common grade, decided by the professor based on the quality of the reports and presentation. Importantly, the grade will not depend on the actual answer provided or statistical significance achieved. Grade will be based on the creativity and appropriateness of the research methods used, the clarity of the exposition and the relationship between the empirical analysis and the initial question of interest.
- 30% Based on peer evaluation. Each member of the team will give a numeric score to every other member of the team by the end of the semester. This is a very serious responsibility being granted to the students, and each student is expected to give their classmates a grade based only on their perception of the effort contribution of each other to the group effort. These grades must be decided *individually* (i.e., without consulting other teammates) by each member of the team, and communicated to the professor in writing. The professor will then average the grades received by each student. Peer evaluations will be completely anonymous between team members.

Procedure for Appealing a Grade. If you believe that your grade is incorrect or unfair, you should submit your concerns, in writing, to the professor. The written appeal should fully summarize what you believe the problems are and why. The professor will consider your appeal. This grade will be final. Note that grades may go up or down during an appeal.

Attendance. Attendance to weekly meetings is mandatory in this class.

Incomplete grades. Incomplete grades will not be given unless there is an agreement between the instructor and the student prior to the end of the course. The instructor reserves the right to determine if the incomplete grade will be given; requests for incompletes will generally be granted only in extreme circumstances.

Important Dates

Teams will be expected to make progress according to a schedule. Teams will first identify a question and the data they plan on using to answer the question. They will then be expected to create and troubleshoot the dataset. Next will come a set of report outs on progress in the analysis and finally they will be expected to hand in a project report and do an oral presentation. The timing of these steps will be coordinated with other coursework in the semester.

COURSE READINGS

No readings will be assigned.

COURSE SCHEDULE

Note this is not a lecture class. Class time is reserved for reviewing progress and providing feedback on projects. Typically, the class will meet twice a week with teams reporting in once a week each.

Week 1

- Presentation by faculty leader:
 - What make a good project

- Questions, Design and Data
- Determine Project Teams

Week 2

- Teams present project ideas and possible data sources vet projects and data sources
- Receive feedback on question, data and design
- Discussion of any ethical or privacy related issues

Week 3

- Project deliverables agreed to
- Data source availability confirmed or alternatives found.

Week 4-6

- Create and trouble shoot Datasets

Week 7

- Preliminary report on data

Week 8-9

- Initial data analysis and first report

Week 10-11

- Revised analysis and second report

Week 12-13

- Final analysis and presentations

Week 14

- Individual Feedback meetings

Week 15

- Revised Presentations and reports due