

Time// Location: 9 am-12:20 pm // Marshak Science Building Room 107

Instructor: James Booth

Contact: Marshak Room 927, jbooth@ccny.cuny.edu

Office Hours: by appointment, send me an email.

Description: EAS472 is a senior-level capstone research project class taught by different faculty members of EAS each semester. This course is meant to give students an opportunity to do research that resembles the research conducted by Master's and PhD level students. The difference however, is that this course focuses on the data analysis more than the reading of previous research. Actual Master's and PhD research (if done correctly) should involve a lot of reading.

Grading:

- | | |
|--------------------------|---------------------------------|
| - Send me an email | 1% (Due before class #2 starts) |
| - Project proposal | 14% |
| - In-class participation | 10% |
| - Progress reports | 3 X 10% = 30% |
| - Final Presentation | 15% |
| - Final Project | 30% |

Format: During the first 3 classes, I will lead the discussion. First we will discuss project ideas (see below). Then I will give a lecture on coding using Matlab. We will discuss how to propose a topic. After week 3, the students will lead the discussion, by presenting their research plans and/or results

Project Ideas: There are a few options for choosing a project:

- 1) If you already have a research project with CCNY faculty, you can continue it.
- 2) If you have an idea for a project (perhaps a continuation from another class), you can do that work. But only if the project is of the right scale for this course and it has to be the case that I can help advise you on the topic.
- 3) I will provide options for research projects.
- 4) If you would like to do a geochemistry, you can work with Prof. Zhengrong Wang (up to 3 students can take this option and work as one group with Prof. Wang).

Course Outcomes:

- Understand the scientific method and be able to apply it.
- Develop a basic level of scientific computer programming skill.
- Analyze and synthesize a research question.

Important Dates:

- Outline Due - Feb 24, 2017
- Progress Reports - Throughout the semester
- Final Presentation - *<scheduled date of final exam, not yet announced>*
- Final Project Due - May 19, 2017