

Course Information

Jiaming Mao

General Information

Course website:

<https://jiamingmao.github.io/data-analysis>

- Github repo: <https://github.com/jiamingmao/data-analysis>
- Homework submission: <http://l.xmu.edu.cn> (Moodle; pw: raven)
- Class discussion: <https://piazza.com/xmu.edu.cn/spring2019/microeconometrics> (Piazza)

Course materials are continually updated and posted to the website and the Github repository. It is recommended that you clone the repo and pull regularly to get updates (here is information on [how](#)).

Teaching Staff

- Jiaming Mao
 - Office: D303 Economics Building
 - Office Hour: Wed 2:00 - 4:00pm or by appointment
 - Email: jmao@xmu.edu.cn
- Xiaoyuan Shen (xyshen@stu.xmu.edu.cn)
- Xiaoqin Wang (273753002@qq.com)

Time and Location

- Time: Tue, Thu 8:00 - 9:40am
- Location: Haiyun 408 (Tue), Nanqiang 402 (Thu)
- Time: Tue, Thu 2:30 - 4:10pm
- Location: Lianxing 401

This Course

This course offers a introduction to:

1.
 - Pattern recognition and predictive modeling
2.
 - Causal effect and causal model estimation
3. and

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- Goal is equip you with both a solid theoretical foundation, and the tools to conduct empirical research using state-of-the-art technology.
 - Lecture materials are written to be both deep conceptually and easy to follow technically.
 - Methods are demonstrated with applications to actual and simulated problems in applied economics.

This Course

- There are no textbooks. We will rely on lecture notes.
- The course repo contains additional materials, notes, and resources for each lecture.
- This course is fast paced and covers a lot of ground.
 - It is that you preview the lecture materials before each class and review them afterwards.
 - It is that you form study groups to discuss the materials and work together to understand them.

This Course

- Weekly review sessions will go over course materials, as well as programming and data analysis problems.
 - Consider them partly as lab sessions!
 - Due to time constraint, many topics discussed in the lecture notes will not be covered in detail in class.
 - You are encouraged to read them by yourself or in study groups.
 - If you have any questions, ask them on Piazza!
- How much you learn depends on how much time you spend.

Computing

- You are expected to have some familiarity with programming/statistical computing language.
- Lectures are written in R, but examples in Python and Stata are also provided.
- For your homework and final project, you can choose language you want.

Evaluation

Midterm Exam	10%
Final Exam	10%
Homework	50%
Final Project	30%
Class (Piazza) Participation	5% extra credit

Homework

- Homework assignments are submitted on [Moodle](#).
- One homework for each lecture:
 - Writing a report on a lecture-related topic
 - Empirical applications of methods
 - Coding examples into other languages
- You are encouraged to discuss and collaborate with classmates. Up to 2 individuals are allowed to work together on a single homework (collaborators submit 1 homework only).
- In addition, we may have small quizzes and tasks for each lecture.

Communications

- We will be using **Piazza** for course related discussions.
- If you any questions about course materials, the best way to get answers is to ask them on Piazza.
 - Other students invariably have the same questions as you do and everyone can benefit from the discussions.
 - You can edit questions and answers wiki-style.
 - You can be anonymous if you wish.
 - You can also send private notes to the teaching staff.
- Active participation on Piazza (both posting and answering questions) earns up to 5% extra credit.

Where can I learn more?

- **Syllabus**: recommended readings
- Related courses, programming resources, etc.: <https://jiamingmao.github.io/data-analysis/Resources>
- My book list on data science: <https://www.goodreads.com/review/list/59975031-jiaming-mao?shelf=data-science>