

36-700 – Probability and Mathematical Statistics I Fall 2018

1 Basic Information

- Course Webpage: <http://www.stat.cmu.edu/~larry/=stat700/index.html>
- Piazza: You may post questions on Piazza. Please allow a 48 hour turn around time.
- Teaching Assistants: See the web site for TA office hours.
- Office Hours: BH 132G, Mondays 1:30pm-2:30pm.

Course description. This is a one-semester course covering the basics of statistics. We will first provide a quick introduction to probability theory, and then cover fundamental topics in mathematical statistics such as point estimation, hypothesis testing and asymptotic theory. If time permits, we will also cover more advanced topics including nonparametric inference, regression and classification. See the website a detailed list of topics.

Prerequisites. Required preliminary math tools are calculus and basic linear algebra. Familiarity with elementary probability and statistics will be helpful, but not required.

How does this course differ from 36-705? This course covers essentially the same set of topics in statistical inference as 36-705. This course will assume less prior knowledge of probability theory and move at a slower pace.

2 Textbooks

The main book is:

All of Statistics by me. This is available as a free pdf from the CMU library.

A good secondary reference is *Statistical Inference* by Casella and Berger.

3 Grading

- 10%: Homework
- 30%: Mid-term 1
- 30%: Mid-term 2
- 30%: Final

4 Class Notes

I will post lecture notes. Print these out and bring them to lecture.

5 Homework

You should feel free to collaborate on the homework, but please write-up your final solutions on your own. In general, HW will be due on Thursday at 3:00. You must upload a pdf on canvas.

No late homeworks accepted.

If you need an extension due to illness, emergencies etc let me know before the deadline.

6 Exams

All exams for this course will be closed book.

Please do not schedule travel before the end of finals (exact date to be determined) until you know when all your finals will be held!

7 Accommodations for Students with Disabilities

If you have a disability, register with the Office of Disability Resources. Use their online system to notify me of your accommodations and discuss your needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.

8 A Message From the University about Health and Well-being

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit <http://www.cmu.edu/counseling/>. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

If you or someone you know is feeling suicidal or in danger of self-harm, call someone immediately, day or night:

CaPS: 412-268-2922

Re:solve Crisis Network: 888-796-8226

If the situation is life threatening, call the police

On campus: CMU Police: 412-268-2323

Off campus: 911