

36-700 – Probability and Mathematical Statistics I

Fall 2016

1 Basic Information

- Course Webpage: <http://www.stat.cmu.edu/~siva/700/main.html>
This page may not be updated regularly once the blackboard site is up and running.
- Piazza: piazza.com/cmu/fall2016/36700
- Teaching Assistant: Ilmun Kim, Email: ilmunk@andrew.cmu.edu.
- Office Hours:
 - Siva Balakrishnan: BH 132K, Wednesday 1:30pm-2:30pm.
 - Ilmun Kim: TBA.

2 Textbooks

We will use material from both All of Statistics by Larry Wasserman and Statistical Inference by Casella and Berger. If you choose to buy one of the books buy the book by C&B.

3 Grading

- **25%**: Homework (almost weekly)
- **20%**: Mid-term 1
- **20%**: Mid-term 2
- **25%**: Final
- **10%**: Class Participation: In-class exercises, attendance and contribution to discussion.

4 Reading and Class Notes

Once blackboard is up and running I will post lecture notes, usually the night before the lecture. You do not have to print these out/bring them to lecture. They are meant mostly for you to have something to review later on. The lecture notes will also contain pointers to sections from the textbooks.

5 Working in Groups

You should feel free to collaborate on the homework, but please write-up your final solutions on your own. In general, HW will be posted some time on Thursday. They will be due the next Wednesday in class (preferable) or on Thursday on Blackboard.

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 and useful topics including nonparametric inference, regression and classification. See the calendar for a detailed (tentative) list of topics.

Prerequisites Required preliminary math tools are calculus and basic linear algebra. Familiarity of 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.

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 An Important Note

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.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

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. Counselling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit their website at

<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.