Stat/Math 342: Introduction to the Theory of Probability and Statistics II

Spring 2011

Prerequisites: Stat/Math 341 **and** Math 307 or Math 317.

Lecture Location: Sweeney 1134

Lecture Times: MWF 10 – 10:50am

Class Website: http://maitra.public.iastate.edu/stat342/sp2011.html

Instructor: Professor Ranjan Maitra

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Office Hours:

> Dr. Maitra: M 2:10-3 pm, W 11-11:50 am
>
> Shan: T, F: 11-11:50 am in Snedecor 2404.

Text and References: The required textbook for the class is "**Mathematical Statistics with Applications**" by **Dennis D. Wackerly**, **William Mendenhall III** and **Richard L. Scheaffer** (*Brooks/Cole, 2008, Seventh Edition*) which is also the textbook that was used for Stat 341 and which we will use for class lectures as well as for exercises.

Content: The course will introduce you to the theory of statistical inference. It will continue with the material of Stat 341 and go into transformations of random variables, sampling distributions, confidence intervals; theory of estimation and tests of hypotheses; linear model theory.

Software: As in Stat 341, the software used will be R, background knowledge for which is assumed to have been acquired in Stat 341.

Grades: Your performance on homework assignments, best two of three midterm exams, and one final exam will determine your grade. I will weigh

the homework assignments, midterms and final exam according to the following percentages when computing the final grade:

Homework: (best ten) 15%

Midterms: (best two) each worth 25%

Final Exam: 35%

Homework Policy: I will assign a problem set each week (roughly). Each homework assignment is worth 10 points. The TA will grade a **random** subset (the same for everybody) of the assigned problems. I will collect homework in class. You may also turn in homework assignments in by 10am on the due date. I will not accept homework after 10am on the due date. Homeworks are not to be turned in "under my office door" or in my department mailbox. I take no responsibility for homeworks delayed or lost if submitted in this manner. I will post homework problems and solutions on the course webpage. Because the TA will not check your solution to every problem, I recommend that you compare your answers with the solutions that I post and ASK me or the TA if you have questions.

While I encourage you to collaborate on the homework problems, each student must write his/her own answers independently. Two papers, therefore, will not be identical. If you work with others, please list the names of collaborators in parentheses on your paper underneath your name.

Exams: The three in-class midterms (best two are worth 25% of the final grade) are tentatively scheduled for **Monday February 7**, **Monday March 7**, and **Monday April 11**. These dates may change a bit depending on how quickly I cover the material. The registrar has tentatively set the time for the **final** exam to be on **Tuesday, May 3** from **9:45pm – 11:45 am**.

Given the options to drop homeworks and mid-terms, I do not give make-up exams.

Academic Dishonesty: This class will follow the Iowa State University policy on academic dishonesty found in the ISU catalog. A score of zero will be given for the entire assignment in which the academic dishonesty occurred and further disciplinary action will be pursued in line with university policy.

Accommodations for Students with Disabilities: Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact Professor Ranjan Maitra, the course instructor, within the first two weeks of the semester. Retroactive requests for accommodations will not be honored. Before meeting with the course instructor, you will need to obtain a SAAR form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-6624.