Class meets on Tu/Th 15:30 pm until 16:45 pm in HHB 420

Instructor: Dr. Nandor Simanyi

Office: 490A Campbell Hall, phone 934-2154

Office hours: Mondays and Wednesdays 11:30—12:30, or by appointment

E-mail: simanyi@uab.edu

There is no required textbook for this course. Students should print class notes from the instructor’s web page.

Grading policy:

Homework  10%
Quizzes   10%
Midterm Test I (cca Feb 14) 20%
Spring Break: March 11-17
Midterm Test II (cca April 2) 20%
Comprehensive Final Exam (April 23, 4:15-6:45 pm) 40%

Homework: The list of homework exercises and due dates will be posted on the instructor’s web page. You need to submit your homework on the due date in class (or put it in the plastic bin on the wall near the instructor’s office). No late homework. Exercises marked as Bonus and Graduate can be attempted for extra credit.

Time to time there will be pop quizzes.

Tests: All tests in this course are open-notes. You may use a calculator, and most likely you will need one, so bring one with you. You may also use a laptop or a tablet PC. To 585 students: You are taking this course at a graduate level! You will need to do all homework exercises marked as Graduate (some of them require reading Chapter 18 from the class notes, which is marked for graduate students). The graduate exercises are mandatory for 585 students. They will make 15% of your course grade, the rest will be rescaled to 85%. The graduate homework problems can be turned in any time before (or on) the final exam.

Syllabus

Chapters of the class notes

1. Combinatorics
2. Probability space
3. Conditional probability and independence
4. Discrete random variables
5. Continuous random variables
6. Exponential random variables
7. Functions of random variables
8. Normal random variables
9. Joint distributions
10. Mean value
11. Variance
12. Moment generating function
13. Covariance and correlation
14. Law of Large Numbers
15. Central Limit Theorem
16. Random walks
17. Poisson process

Regular class attendance is very important and strongly encouraged. The instructor will follow the class notes, so if you have to miss a class, study the notes thoroughly. Class notes (written by Dr. Nikolai Chernov) are available on the instructor’s web page:

http://people.cas.uab.edu/~simanyi/teaching/485-585/

You should print them and use them. Also, homework assignments, due dates, past tests (some with answers), and more are posted on this web page.