ECE 313: Probability with Engineering Applications. Spring 2003

Class meeting times: Section C 10 MWF 165 Everitt Lab

Section D 11 MWF 245 Everitt Lab

Prerequisite: ECE 210

A good understanding of the fundamentals of differential and integral calculus, functions of several variables, multiple integrals, etc. is assumed. On the other hand, we will not need stuff like vector calculus, gradients, Green's theorem etc.

Instructor: Professor Dilip V. Sarwate 109 Coordinated Science Lab 333-7473

326B Everitt Lab 333-0387

Electronic mail: sarwate@uiuc.edu

Office Hours: Tuesdays 1:00 pm – 4:00 pm in 109 CSL

At other times, I am usually in my CSL office from 8:30 a.m. to 4:00 p.m. and am usually available to discuss course-related matters without the formality of making an appointment. However, you might save yourself a walk from Everitt Lab to CSL by first sending e-mail or by calling me at 333–7473 to make sure that I will not be busy with other matters when you plan on coming over.

Teaching Assistant:: Not assigned as yet **TA Office Hours:** To be determined

Textbook: R. D. Yates and D. J. Goodman, Probability and Stochastic Processes: A Friendly

Introduction for Electrical and Computer Engineers, John Wiley & Sons, 1999.

Optional Reading: D. V. Sarwate, Probability with Engineering Applications,

Lecture Notes for ECE 313, Fall 1997. (Available on the class web page)

D. V. Sarwate, Probability with Engineering Applications,

Powerpoint slides for ECE 313, Fall 2000. (Available on the class web page)

Books on reserve in Grainger Engineering Library:

C. Ash, A Probability Tutoring Book, IEEE Press, 1992.

H. P. Hsu, Probability, Random Variables & Random Processes, McGraw-Hill 1997.

S. Ross, A First Course in Probability (Sixth edition), Prentice-Hall, 2001.

R. E. Walpole and R. H. Myers, Probability and Statistics for Engineers and

Scientists, (Fifth edition) Prentice-Hall 1993.

Reference Material: (Ask at the REFERENCE desk, not the Reserve Desk, of Grainger for this book)

M. Abramowitz and I. A. Stegun, Handbook of Mathematical Functions,

National Bureau of Standards, 1964; also Dover Press, 1965.

Communications: The newsgroup uiuc.class.ece313 and the WebBoard

http://webboard.cites.uiuc.edu:8080/~ECE313_Sarwate_SP03

are available for class-related discussions. Please remember that the WebBoard runs on a nonsecure server, and thus you are urged to not use the password associated with your NetID as your WebBoard password. Class information will be posted in both places from time to time. However, news-servers and WebBoards delete postings after a few days, so these items may disappear after a while. Similarly, some information (such as the ECE 313 calendar) will be available to you at your ECE web portal at

http://my.ece.uiuc.edu

A more permanent source of informationabout ECE 313 is the main home page for ECE 313 at

http://courses.ece.uiuc.edu/ece313/

Please read the ECE 313 FAQ at this site. Links from this page will lead you to this semester's web page which has detailed information about this semester's offering — for example, a copy of this information sheet is posted there for the convenience of those who mislay such items. The class web page can also be accessed directly at

http://courses.ece.uiuc.edu/ece313/spring03

You can also follow links from the main ECE 313 home page to the home pages for ECE 313 offerings during previous semesters. These old web pages contain a wealth of homework and exam materials that you may find useful in studying for the course during the semester.

E-mail addressed to the instructor or TA (rather than telephone calls) should be used for simple specific questions on classwork or homework, as well as for setting up appointments outside office hours, etc. If the answer to your question might be of general interest to the class as well, post it to the WebBoard also, and it will be answered there. Note that the instructor and TA do not read the newsgroup on a regular basis, but do monitor the WebBoard.

Homework: Homework will be assigned on Wednesdays, and will be due in class on Wednesday of the following week at the beginning of the class period. Homework turned in late, or turned in in a section different from the one you are enrolled in, will not be accepted for academic credit. Solutions to the homework will be distributed in class. Problem Sets and Solutions will also be posted to the class home page, usually a day before printed copies are distributed in class. If you prefer to get these documents off the home page, please let me know so that I can save a few trees by having fewer copies printed.

Examinations: In-class Hour Exams (of 50-minute duration, actually) will be held on Mondays March 3 and April 14. One $8\frac{1}{2}$ "× 11" sheet of notes is permitted (you may use both sides); but the examinations are closed book otherwise. Calculators, tables of integrals, laptop computers, PDAs, cellphones, wireless pagers, etc. are neither necessary nor permitted.

Final Examination: The date, time and place of the Final Examination will be announced later. **Two** $8\frac{1}{2}$ "× 11" sheets of notes are permitted on the final examination (you may use both sides); but the examination is closed book otherwise. Calculators, tables of integrals, laptop computers, PDAs, cellphones, wireless pagers, etc. are neither necessary nor permitted..

Grades: Scores on homework and examinations will be weighted as shown below in determining your grade in this course.

15% Homework

20% Each Hour Examination

45% Final Examination

Your lowest homework score will be dropped in computing your average homework score. For more information on the grading scheme, visit the class home page.

You can check your class standing via the Campus Gradebook. Gradebook clients are installed on most CCSO PCs and Macintoshes. Visit

http://www.uiuc.edu/ccso/gradebook

for more information about the Campus Gradebook or to download a Gradebook client application to your personal PC or Macintosh computer. Web browsers capable of secure communication can be used to view Gradebook information (subject to some delay and some loss of functionality.) More information can be found at https://gradebook.cso.uiuc.edu/SWA