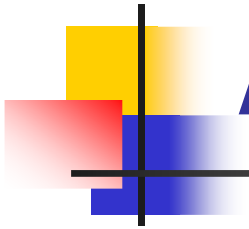
PROBABILITY AND STATISTICS FOR ENGINEERS

Session 1

Dr Abdelaziz Berrado

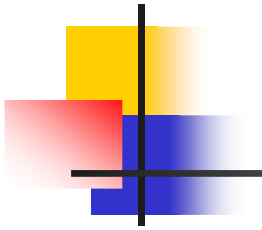
MTH3301—Fall 09



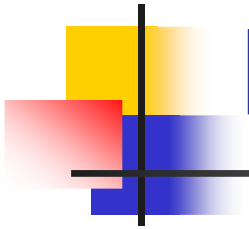
Agenda

- Presentations
- General Intro About the course
- Syllabus

General Intro About the course



- Objective: Provide intro to probability and statistics, emphasizing applications in science and engineering.
- This course is a calculus based introduction to probability and statistics with emphasis on techniques and applications that are most useful to engineering.
- Topics cover usual discrete probability distributions, continuous probability distributions, multivariate probability distributions and an introduction to statistics and sampling distributions with a strong emphasis on engineering applications.



Logistics

- **Instructor: Dr Abdelaziz Berrado**
- **Office: R 01 Bldg 6.**
- **Phone: 2122.**
- **Email: A.Berrado@aui.ma**
- **Lectures TR 17:00-18:20 in R 008 Bldg 06**
- **Office hours: W16:30 – 18:30 & TR 10:30-12:30 & 15:30-17:00**

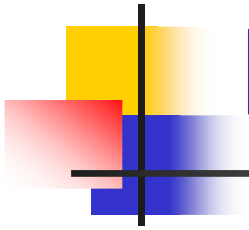
Please honor these office hours and come *prepared*

- **Home page: http://www.aui.ma/personal/~A.Berrado/MTH3301.htm**

Course Outline

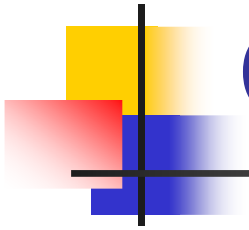
Sessions	Topics	Readings
1-4	Introductory Material/ Probability Intro	Ch 1
5-7	Random Variables	Ch 2
7-9	Functions of One Random Variable	Ch 3
	EXAM 1(Session 10)	**October 6th**
11-13	Joint Probability Distributions	Ch 4
14-16	Discrete Distributions	Ch 5
17-23	Continuous Distributions	Ch 6
	EXAM II (Session 19)	**November5th**
24- 27	Normal Distribution	Ch 7
28-29	Descriptive Statistics	Ch 8
	FINAL EXAM (to be decided)	**Dec 13th-18th**

- **Holidays:**
- **September 21-22 Holiday: Aid Al Fitr**
- **November 26-30 Holiday: Aid Al Adha**
- **December 11 Last Regular Class Day.**



Required textbook

Probability and Statistics in Engineering, by William W. Hines, Douglas C. Montgomery, David M. Goldman, Connie M. Borror. (Fourth Edition)



Course Prerequisite

- You should be familiar with some programming language and maybe even a spreadsheet package.
- Furthermore, you should have taken MTH 2301 before this class.

Course structure and other important comments:

- Grading: The course will consist of two 100-point examinations, and 100 points of homework assignments, pop quizzes, class attendance and participation and a comprehensive final exam worth 200 points making a maximum earned point total of 500 points. Students with 450 or more points will receive an A; between 400 and 450 will receive a B; 350-400 will receive a C; 300-350 will receive a D; and students who total below 300 will receive an F. The course structure and grading policy do not allow for the "earning" of additional credit or for the awarding of "bonus" points based on effort.

Course structure and other important comments:

- **Student's efforts: Besides class hours, every student should devote at least 6 hours a week to grasp the content of the book and the class notes, to work out the examples, and to do homework exercises. You are welcome and highly encouraged to see me during my office hours if you need any help with this class.**

- **The instructor will make lecture notes (slides and other material) available on his website at the following address: http://www.aui.ma/personal/~A.Berrado/. The purpose of these lecture notes is to help the students summarize the material presented in class only, and cannot by any means substitute for regular attendance, active participation, and in-class note taking by the students.**

Course structure and other important comments:

- **Homework:** Will be assigned after every class but not collected, however, all students are urged to do them on a daily basis. It should be a way of telling you how you are doing in this class. If you have trouble solving some of the assigned problems, you should seek help right away. I would always be ready to answer your questions during my office hours. From time to time I will collect some of your homework and will grade some of the problems. I will tell you before hand if the assignment is due or not. Furthermore, I will be giving some unannounced quizzes based on homework problems. It is your responsibility to obtain the assignments if you miss class. If you cannot come to class on the day of submission of homework, have your homework turned in through one of your classmates.
- **Academic integrity:** Homework, Quizzes and Exams are to be accomplished without any form of outside assistance. For example, sharing answers, using answers from prior semesters, copying from others work, copying from the solution key, etc. are all inappropriate and will be considered cheating. All cases of cheating will be reported to the Dean's office as a violation of the academic integrity policy and will be punished appropriately.

Course structure and other important comments:

- **Exams:** The exam dates are set and will not be changed. The content/coverage of the exams may be altered to reflect the rate of material presented in class. Makeup exams will not be given.
- A**nnouncement:** All announcements regarding changes in the class will be made in class and sent via email.
- Regular attendance is essential. Students who miss a class are responsible of all the work, notes, handouts, and assignments they miss. **Please refer to the attendance policy section below.**
- In order not to disturb the lecture, the students should always arrive on time and avoid leaving the class early. **Arriving late to the class 3 times** will account for **one unexcused absence**. Furthermore, everybody is asked to keep cell phones off during class sessions and abstain from unnecessary and unauthorized conversation.