

## Math 116—First half of Fall 2003

## Syllabus

**Instructor:** Rob Manning, [rmanning@haverford.edu](mailto:rmanning@haverford.edu)

**Office:** Koshland H207C (down a half-floor from the main math dept space), 896-1210

**Office Hours (tentative):** MWF 1-2 PM, Th 1-3 PM, or arrange another time with me

**Discussion Sections (tentative):** W 3-4 PM, Th 12-1 PM. These are optional hours for you to work on practice problems related to the course material and get help on HW problems.

**Math Question Center:** Sun-Thu 7-9 PM. optional time to gather in Koshland H011 to discuss upcoming homework problems with other students and get assistance from a faculty member or upperclass math major on duty.

**Text:** “Probability and Statistics for Engineering and the Sciences (6th ed)”, Jay Devore, (Brooks/Cole, 2003)

**Homework:** Six problem sets due in class on 9/5, 9/12, 9/19, 10/3, 10/10, and a “mini-HW” due on 10/22 (counts toward HW grade, material not covered on tests). Solutions will be posted on the Web after HW is returned in class.

**Late homework:** You can leave late HW in the Math 116 box in the “waiting area” outside my office. If I retrieve it from the box before I grade that batch of HW, there will be no grade penalty (but I can not promise I will check the box between class time on the due date and the time when I begin grading). Thereafter, there will be a 20% grade penalty, up until the point when I return that HW in class. After then, that HW can not be turned in for a grade, although I will be happy to mark it for correctness.

**Tests:** There will be a midterm on Sep. 24-26 (in-class, closed-book part during class on Sep. 26, and a take-home open-book part distributed in class on Sep. 24 and due in class on Sep. 26). There will be a final on Oct. 22-24 (in-class, closed-book part during class on Oct. 24, and a take-home open-book part distributed in class on Oct. 22 and due in class on Oct. 24).

<b>Grades:</b>	Homework : 25%
	Midterm: 35%
	Final: 40%

**Honor Code:** For homework problems, discussion with other students in the class or with me is highly encouraged, e.g., in Math Question Center, my office, or elsewhere. Please indicate on your homework who your collaborators were. *Please see <http://www.haverford.edu/math/collaboration.html> for discussion of appropriate modes of collaboration on homework. The short version is that the actual writing of the assignment should be done individually, without using detailed notes from your collaborative discussions, so that it represents your personal understanding of the problems.* For the midterm and final, no collaboration is allowed. You may ask me for clarification of the questions on tests, but I will not give suggestions about the actual solutions.

**Web page:** <http://www.haverford.edu/math/rmanning/math116.html>

The Web page will contain all handouts, HW assignments, and HW solutions.

### Anticipated Schedule:

9/1–9/5	Descriptive statistics, intro to probability (1.1–1.4, 2.1–2.2)
9/8–9/12	Computing probabilities, conditional probabilities (2.3–2.5)
9/15–9/19	Discrete random variables (3.1–3.5)
9/22–9/26	Continuous random variables (4.1–4.2)
	<b>9/26: Midterm (open-book part due in class, closed-book part taken in class (on material 9/1–9/19))</b>
9/29–10/3	Continuous random variables con't (4.3, 4.4), several random variables (5.1–5.2)
10/6–10/10	Sample statistics, Central Limit Theorem, estimators (5.3, 5.4, 6.1)
10/13–10/17	FALL BREAK
10/20–10/24	Hypothesis testing (8.1–8.2)
	<b>10/24: Final (open-book part due in class, closed-book part taken in class (on material 9/1–10/8))</b>

### FIRST ASSIGNMENT (Due Friday Sept. 5):

Read Sections 1.1–1.4

§1.2, # 12, 16, 17.

§1.3, # 33, 36abc, 42.

§1.4, # 44 a (b or d) c, 50, 56, 59

Supplementary Problems for Ch. 1, # 62, 64.