

Math 115—Second half of Fall 2003

Syllabus

Instructor: Rob Manning, rmanning@haverford.edu

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

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

Discussion Sections: W 3-4 PM (Hilles 011), Th 12-1 PM (Hilles 012), plus one more hour to be arranged. 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: optional time to gather in Hilles 011 to discuss upcoming homework problems with other students and perhaps faculty helper. The MQC is open Sun-Thu 7-9 PM.

Text: “Calculus (3rd ed)”, Hughes-Hallett et al (Wiley, 2002) and a supplementary packet on parametric equations from “Calculus: Concepts and Contexts” (2nd edition) by Stewart (Stewart will be available soon on Blackboard).

Homework: Six problem sets due in class on 10/31, 11/7, 11/14, 11/26, 12/5, and 12/12. Solutions will be posted on the Web after HW is returned in class.

Late homework: You can leave late HW in the Math 115 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 Nov. 19-21 (in-class, closed-book part during class on Nov. 21, and a take-home open-book part distributed in class on Nov. 19 and due in class on Nov. 21). There will be a self-scheduled final during the final exam period.

Grades:

Homework :	30%
Midterm:	20%
Final:	50%

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 separate sheet and math Web page 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/math115.html>

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

Anticipated Schedule:

10/27–10/31	Improper integrals (7.7–7.8)
11/3–11/5	Infinite series, geometry series (9.1–9.2)
11/10–11/14	Convergence tests, estimating series (9.3)
11/17–11/19	Taylor polynomials (10.1)
	11/21: Midterm (open-book part due in class, closed-book part taken in class)
11/24–11/26	Taylor series and approximations (10.2–10.4)
	11/28: THANKSGIVING
12/1–12/5	Applications of series, Fourier series (10.5)
12/8–12/12	Parametric curves (supplementary packet)

First Assignment (due Friday, Oct. 31)

Read Hughes-Hallett §7.7

Problems in §7.7: 5, 11, 12, 19, 22, 26, 27, 33

(For # 12, 19, 27, you may use an integral table or Mathematica to do the indefinite integral, and then from there you should plug in the limits and do the “ $L \rightarrow \infty$ ” analysis yourselves).