Discrete Mathematics

MA 190
Spring 2008

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Hoffberger 140
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Office hours: MWThF 10:30–11:20am. Other times by appointment.

Class: Hoffberger 135, MWF 11:30am–12:20pm.
`http://phoenix.goucher.edu/~kelliher/s2008/ma190/`

Objectives: One of my favorite sayings is "Computer science is applied mathematics." Software and hardware are only two of the many facets of computer science. Discrete mathematics is an additional, critical facet. Here's where we open the mathematical toolbox and learn how to use the tools. Topics to be studied include: logic, set theory, countability, methods of mathematical proof (including mathematical induction), growth rate of functions, recursion and recurrence relations, and graph theory.

Expectations: This course is definitely not for the math-phobic. Its design and intent is to provide computer science majors with the mathematical foundation necessary for the major. The course's degree of difficulty is comparable to Calculus I. As with all mathematics, mastery of this material requires steady dedication; there are no "shortcuts."

Placement into the class via the online Mathematics Placement Exam is required.

Textbook: K. H. Rosen, "Discrete Mathematics and Its Applications," 6th edition, McGraw Hill, 2007. Required.

Grading:

Grade Distribution

A = [92–100], A- = [90–92), B+ = [88–90), B = [82–88), B- = [80–82), etc. Grades are "one point rounded."

Course Point Distribution

There are tentatively 820 total points for the course:

1. Written assignments. Written work will be assigned each class and collected at the beginning of the next class. No late work will be accepted, and all work must be turned in in-person. However, the lowest three assignments will be dropped. Approximately 35 assignments, 10 points each assignment, for a total of 320 points.

2. Weekly quizzes. Short quizzes will be given in class those Wednesdays on which exams aren't scheduled. There will be 11 quizzes, each worth 10 points. There will be no makeup quizzes, but the lowest quiz grade will be dropped. 100 points, total.
3. Semester exams. There will be two exams, on the following dates: Feb. 27 and Apr. 9. Each will be worth 100 points. If you need to re-schedule an exam, it is your responsibility to let me know a few days beforehand.
4. Final. There will be a cumulative final, scheduled by SAS. The final is worth 200 points.

Current grades (password protected) may be viewed on the class home page.

Course Handouts:

Course handouts will be made available once in class. After that, they may be obtained from the class home page.

Attendance: Attendance of classes is expected. It is your responsibility to catch up on missed class work.

Electronic Communication:

From time-to-time, I will need to send e-mail messages to the class. These messages will be addressed to your official Goucher e-mail addresses. You are responsible for checking your e-mail on a timely basis.

Distractions: Cell phones must be turned off or set to "silent" during class. If you must enter late, do so as unobtrusively as possible. Likewise if you must leave early. Please use mental telepathy if you must hold a personal conference during class. I have ways of making you not talk!

Integrity: Academic dishonesty will not be tolerated. We are all bound by the Academic Honor Code.