Syllabus

Text: Discrete Mathematics with Applications (2d ed.), by Susanna Epp
Prerequisites: Either CMSC 103 or CMSC 201 and either Math 151 or Math 140.
TA: Amitkumar Mahadevan, amahad1@gl.umbc.edu
Course Information: http://www.research.umbc.edu/~tadwhite

Course Description:

Elementary topics in logic, methods of proof, set theory, combinatorics, recurrences, functions and relations. Applications may include algorithm verification, algorithm complexity, and finite state automata. Roughly, the material breaks down into three sections as follows:

1. Logic and proofs Chapters 1 - 4
2. Sets, functions, relations, counting Chapters 5, 6, 7, 10
3. Recursion, algorithms and structures Chapters 8, 9, 11

Homework:

Homework will be assigned approximately weekly. To receive full credit, homework must be turned in to the instructor by the end of the evening lecture. I will also accept homework submitted by email, provided it is turned in by the due date. Do not slide homework under my office door!! Students wishing to submit homework by email should negotiate an acceptable format with the instructor.

While only selected problems will be collected, it is strongly recommended that you try to solve as many problems as you can, in each assigned section of the text. The only way to learn this course material is through working problems.

Exams and Grades:

There will be two 75-minute examinations during the semester, plus a comprehensive final exam. These will be weighted as shown, and added to determine a point total for the course:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Date</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Homework</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>Exam I</td>
<td>March 1</td>
<td>25%</td>
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<tr>
<td>Exam II</td>
<td>April 12</td>
<td>25%</td>
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<tr>
<td>Final</td>
<td>TBA</td>
<td>25%</td>
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For the final grade, a point total of 85% will guarantee an A, 75% at least a B, 65% at least a C, and 50% at least a D. Grading may in fact be more lenient. **No makeup exams will be offered** except possibly under extreme circumstances authorized by UMBC.

Finally, attendance at the lectures is not required, but is strongly encouraged. While the homework and exams will be primarily based on material in the text, we will discuss some additional topics, not included in the text, which may appear on the exams. The instructor will provide supplementary notes for any topics not adequately covered in the text. These will be handed out in class and made available on the course website.

**Computational Facilities:**

Each student should obtain a permanent, named account on the UMBC computer network. To obtain an account, go to any computer lab (e.g. the first floor lab in the ECS building) and follow the instructions for applying for an account. Although there will be no programming assignments per se, students are strongly encouraged to use the computer facilities for email, newsgroups, network access, word processing, and access to course materials. Academic Computing Services offers tutorials throughout the semester on the use of these and other resources.

During the semester, I will post course materials, such as homework assignments and supplementary notes, on the web at the location indicated at the top of the syllabus. Many of these documents will be in Adobe’s Portable Document Format, for which free readers are available\(^1\). For printing hardcopies, you may find that the PostScript version gives better results. Ghostview\(^2\) is a popular PostScript viewer; it is slightly more complicated to install than the Acrobat Reader.

**Academic Conduct:**

Each student is expected to be familiar with all University and Department policies on academic misconduct. One egregious type of academic misconduct is plagiarism, which in each of its many forms involves representing someone else’s work as your own.\(^3\) For example, copying phrases from someone’s written homework is one form of plagiarism. It is the policy of the instructor and of the department to give a course grade of F to any students guilty of academic misconduct; offenders also risk suspension from UMBC.

**Contacting Me**

I am not normally on campus. You can leave telephone messages for me with the CS department, but in general the best way to contact me is through email at *tadwhite@umbc.edu*. I can meet with students after class as needed; to meet with me before class you’ll need to make an appointment, at least a day ahead of time. Your TA is on campus; TA office hours will be announced as soon as they have been arranged.

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\(^1\)Adobe’s own Acrobat Reader is popular; it can be found at [http://www.adobe.com](http://www.adobe.com).


\(^3\)I plagiarized much of this syllabus from Paul Artola. But I admit it up front!