Discrete Mathematics for Middle School Teachers
Math 173 (section 1), Spring 2011

Professor: Dr. Oscar Levin, Wall 101C, 349-2280, olevin@coastal.edu
Office Hours: Mon - Fri, 11-12.
Website: http://ww2.coastal.edu/olevin/math173s11/ (or through Blackboard).

Course Description: Develop the number systems used in mathematics, with special focus on discrete systems and fundamental ideas of number theory. Introduce the basic ideas of discrete mathematics: graphs, trees, and combinatorics. Basic probabilities and conditional probability.

Prerequisite: Math 160.

Course Objectives: In this course students will

- demonstrate computational proficiency, including a conceptual understanding of numbers, ways of representing number, number systems, and meanings of operations.
- apply the fundamental ideas of discrete mathematics to solve problems.

Student Learning Outcomes: Students successfully completing Math 173 will have the ability to

- Improve in their writing, oral communication, and collaboration skills.
- Increase their repertoire of problem solving strategies, particularly in the areas of number theory and discrete mathematics.
- Apply appropriate problem-solving strategies correctly.

Exams: There will be three midterm exams and a cumulative final. The midterm exams are tentatively scheduled for the following dates:
  Exam 1: Thursday, February 10
  Exam 2: Thursday, March 10
  Exam 3: Thursday, April 21

  The cumulative final exam will be on Thursday, May 5th at 4:00 pm. Missed exams will be made up at the discretion of the instructor and only for excused absences.

Quizzes: Throughout the course, there will be short (5-10 minute) in-class quizzes. These can cover any material from previous lectures, homework exercises or even the previous night’s reading. Quizzes will rarely be announced ahead of time and you should be prepared for a quiz on any given day of class. These quizzes will allow you to check yourself on some basic problems as we move through the semester, so that you will not be surprised when you get to the exams, and to ensure you are keeping up with the material. Missed quizzes may not be made up under any circumstances.

Homework: Homework will be assigned for each class period, and will always be listed on the course website. You should do all the homework assigned by the due date listed (usually the next class period) and be prepared to answer questions about the problems or
even present a complete solution. Homework will be collected weekly. You are also expected to read the textbook, completing each section before it is discussed in class. See the schedule on the course website for which pages to read.

**Class-work:** Mathematics is not a spectator sport. Class periods will be a mix of lecture, discussion and practice. I will assign you a class-work grade based on the level and quality of your participation. You can get good participation grades by asking relevant questions, answering questions, presenting solutions to problems, and contributing to group work.

**Attendance Policy:** As stated in the 2010-2011 University catalog on page 41, you are obligated to attend class regularly. Absences, excused or not, do not absolve you from the responsibility of completing all assigned work promptly. I am permitted to impose a penalty, including assigning the grade of F, for unexcused absences in excess of 25% of the regularly scheduled class meetings. Attendance at all classes is expected and is required on scheduled test days. In addition, it is impossible to get class-work points if you are not in class.

**Makeup Policy:** In general, missed quizzes and exams may not be made up and homework may not be turned in late. Exceptions will be made only in very extreme cases. Please contact me well in advance whenever possible if you need me to consider such an exception. However, missed quizzes cannot be made up under any circumstances.

**Classroom Policies:** Please be considerate of your fellow classmates and do not act in a disruptive manner. Turn off your cell phones and mp3 players before coming to class, arrive on time, and do not pack up your things before the end of class. If you need to leave the room for any reason (like using the restroom) please do so as quietly as possible. Since your cell phones should be off, this of course means no texting.

**Statement of Academic Integrity:** Coastal Carolina University is an academic community that expects the highest standards of honesty, integrity and personal responsibility. Members of this community are accountable for their actions and reporting the inappropriate action of others and are committed to creating an atmosphere of mutual respect and trust.

**Grade Distribution:** Your final grade will be calculated as follows:

- Homework, Quizzes, Class-work: 30%
- Exams: 15% each
- Final Exam: 25%

**Grade Scale:** Grades will be assigned according to the following scale:

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>87% - 89%</td>
<td>B+</td>
</tr>
<tr>
<td>80% - 86%</td>
<td>B</td>
</tr>
<tr>
<td>77% - 79%</td>
<td>C+</td>
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<tr>
<td>70% - 76%</td>
<td>C</td>
</tr>
<tr>
<td>67% - 69%</td>
<td>D+</td>
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<tr>
<td>60% - 66%</td>
<td>D</td>
</tr>
<tr>
<td>≤ 59%</td>
<td>F</td>
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