Syllabus for
Discrete Mathematical Modeling
Math 381 A - Autumn 2015

Lecturer: Dr. Matthew M. Conroy
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(always specify Math 300 in the subject line)
Office: In the Math Study Center, Communications B-014
Web page: www.math.washington.edu/~conroy

My office hour times can be found at the web page above. Office hours are times when you can speak to me without making an appointment - just stop by. If you can’t make those hours, let me know and we can find other times to meet.

Course topics: This course will introduce you to a number of mathematical modeling concepts and methods including:

- linear and integer programming
- graph theory
- markov processes
- monte carlo simulation
- other topics? (multidimensional scaling?)

Text: There is no required text for this course. Numerous readings will be listed on the course website as the course progresses.

Lectures: There are lectures each Monday, Wednesday and Friday.

All cell phones, laptops and tablets should be put away during lectures, unless you are presenting.

Homework: Homework assignments will be listed on the class website. Generally, there will be an assignment due each Friday after the first week of class.

You are encouraged to work with other students to complete the homework assignments. However, the work you turn in must be your own. Do not copy another student’s work, and do not allow your work to be copied.

Late homework will not be accepted. However, you are allowed to miss one homework assignment, for any reason, without penalty to your grade. This is implemented by dropping each student’s lowest homework score when calculating each student’s homework average. It is always to your advantage to turn homework in rather than not.

Graded homework must be picked up no later than the end of the next class day after the day that homework is returned. Failure to do so will result in a significant reduction of points to your homework.

Participation: It is essential that you come to every class meeting. Attendance will sometimes be measured. Participating in class discussions will be part of the participation component of your grade.

Exams: There are no exams in this course.

Projects: There will be two course projects. The result of each project will be a short paper. You will work in groups on these papers. I will assign groups by the second class meeting.

Each student will get a separate project grade based on the quality of the paper, and the student’s contribution to the paper.

Groups will also present their papers. The quality of the presentations will be part of the project grade. Participation in these presentations is part of your participation grade component.
Important Dates:

<table>
<thead>
<tr>
<th></th>
<th>proposal due</th>
<th>project due</th>
<th>project presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>First project</td>
<td>October 16</td>
<td>October 30</td>
<td>November 2, 4, 6</td>
</tr>
<tr>
<td>Second project</td>
<td>November 13</td>
<td>December 4</td>
<td>December 7, 9, 11</td>
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To have your project proposal approved, at least two group members must together discuss the proposal with Dr. Conroy in office hours.

**Grading:** Your course grade will be made up of the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>office visit, week 1 or 2</td>
<td>1 %</td>
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<tr>
<td>participation</td>
<td>10 %</td>
</tr>
<tr>
<td>homework</td>
<td>20 %</td>
</tr>
<tr>
<td>first paper</td>
<td>32 %</td>
</tr>
<tr>
<td>second paper</td>
<td>37 %</td>
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If you feel that an error in grading has occurred, you have **one week** after the graded material is returned to bring it to Dr. Conroy’s attention. You should stop by Dr. Conroy’s office hours to discuss it.