This document is just a summary. Full details and updates appear on our section website:

http://people.math.umass.edu/~mboratko/teaching/

Michael Boratko
Office: LGRT 1423L
Hours: TuTh 10am-11am
E-mail: mboratko@math.umass.edu
Mailbox: LGRT 1623D

Prerequisite: Successful completion of Integral Calculus (Math 132) and Multivariable Calculus (Math 233, which may be taken concurrently). Some familiarity with Linear Algebra at the level of Math 235 will be very helpful.

Requirements and grading:

• Midterm Exam, Tuesday, October 20: 25%
• Final Exam, Tuesday, December 15, 10:30AM - 12:30PM, LGRT 123: 40%
• Quizzes (combined in class and take home): 20%
• Homework (WebWork): 15%
• Regular class attendance and doing all assigned reading.

The course letter-grade scale is:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93 - 100</td>
</tr>
<tr>
<td>A−</td>
<td>90 - 92</td>
</tr>
<tr>
<td>B+</td>
<td>87 - 89</td>
</tr>
<tr>
<td>B</td>
<td>83 - 85</td>
</tr>
<tr>
<td>B−</td>
<td>80 - 82</td>
</tr>
<tr>
<td>C+</td>
<td>77 - 79</td>
</tr>
<tr>
<td>C</td>
<td>73 - 75</td>
</tr>
<tr>
<td>C−</td>
<td>70 - 72</td>
</tr>
<tr>
<td>D+</td>
<td>67 - 69</td>
</tr>
<tr>
<td>D</td>
<td>60 - 62</td>
</tr>
<tr>
<td>D−</td>
<td>&lt; 60</td>
</tr>
</tbody>
</table>


Supplemental text: Ordinary Differential Equations, Author: Tenenbaum and Pollard, Publisher: Dover

Required homework system: WebWork

I will be setting up the WebWork homework system for our class once the class roster has stabilized (likely by September 10). Instructions will be provided at that time for you to access WebWork.

Topics: We will cover the first 6 chapters of the text. A list of topics which will be covered include:

• Introduction of ODEs from Mathematical Models
• First-Order ODEs, methods of solving linear 1st order ODEs, existence and uniqueness
• Second-Order linear ODEs, and methods for solving higher order linear ODEs
• Models and practical examples of second-order linear ODEs
• Laplace transforms
• Systems of ODEs, with emphasis on 2-dimensional systems
• Predator-prey models, attractors
• Power series methods
• Preview of PDEs
Exams

- There is no required calculator for the course, although many students find them helpful. You will be allowed to use a calculator on exams, but only to perform arithmetic calculations. You must show all work other than arithmetic calculations.

- Absolutely no formula sheets, class notes, etc. will be allowed during final and midterm exams. Learning and memorizing formulas takes time. Do not postpone this until the last minute.

- In case of an exam conflict, you must provide a documented request for a make-up two weeks before the exam.

Quizzes

There are no discussion sections for this class, so quizzes will regularly be given during class or as an out of class assignment. The quiz may or may not be announced, but in all instances the objective of the quiz is to encourage you to do the homework regularly and bring thoughtful questions to class.

The lowest two quiz grades will be dropped and will not be included in the quiz portion of your final grade. This is to allow for all reasons for missing quizzes, including illness, emergencies, officially excused absence from campus, and absence for religious observance. For this reason, there will be no makeup quizzes for any reason.

Please note that if a quiz is given as an out of class assignment, the due date is firm. If the quiz is not turned in on time, it will be counted as a zero.

Homework

Most homework assignments will be given on WebWork. In order to accommodate situations which arise and prevent you from completing homework, the lowest 2 homework scores will be dropped prior to calculating the homework portion of your final grade. You are also allowed up to two extensions for homework assignments.

Help resources

The Calculus Tutoring Center in LGRT 110 is normally open Monday through Thursday, from 10:00 am to 3:00 pm. Although Math 331 is not officially one of the courses for which the Tutoring Center offers assistance, many of the instructors there are happy to help with Math 331 questions.

Class etiquette

- Turn off your cell phone or other noisy devices before class starts.

- If you arrive late to class, sit in the first seat you can find so as not to disturb others, and do not come up to the front of the room to pick up or hand in papers.

- I would discourage computer use during class.

Religious observance

If you will be absent from an exam or other class activity because of religious observance, you must notify me in writing, in advance of the absence, and at the beginning of the semester – within one full week of your enrollment in the course.

Drops, Withdrawals, and Incompletes

The last day to drop with no record is Monday, September 21st. If you intend to drop, please do so as soon as possible; others may be waiting to enroll in your section. The last day to drop with a W is Thursday, October 22th.

An Incomplete is possible only if: (1) you had a compelling personal reason, e.g., serious illness; (2) your work has clearly been passing; and (3) there’s a good chance you’ll complete the course with a passing grade within the allotted time. Thus, failing work is no reason in itself for an Incomplete.

Academic honesty

You must observe the UMass Academic Honesty policy. See:

http://www.umass.edu/dean_students/codeofconduct/acad honesty/