Math 321APPLIED DIFFERENTIAL EQUATIONS IWinter 2018

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Web Page: http://math.oit.edu/~watermang/ There is a link there to a page for our class. (Doing a search for waterman oit will find you the web page as well.) At the web page you can find the syllabus, links to chapters of the textbook, and a daily schedule with reading, assignments, and links to the lecture notes from each day.

Office Hours: 10-11:30 MTWF. You are also welcome to drop in any time to see if I am around - if I am I can usually take some time to help you. I can also make appointments for other times.

Textbook: The textbook is a book I wrote that you can buy at the bookstore for about \$15 or **you can download it or access it online at the class web page**, http://math.oit.edu/~watermang/

Course Goals and Objectives: After completing this course, students will be able to

- 1. Classify and solve first and second order differential equations and initial value problems.
- 2. Model physical phenomena with first and second order differential equations.
- 3. Solve applied problems in the context of first and second order differential equations.
- 4. Communicate mathematical ideas using correct and appropriate notation.

Grading: Your grade will be based on your scores on exams, quizzes, assignments and in-class activities.

- *Regular Exams:* There will be three exams given during the term. You MUST take exams at the scheduled times and there will be no make-up for missed exams. See the schedule at the end of this syllabus for exam dates. Make-up exams can be given for previously arranged absences if you have a good reason to miss an exam.
- *Final Exam:* The final will be given during the time period listed in the calendar below. It will be comprehensive. You MUST take the final at the designated time, so make all travel arrangements accordingly.
- *Quizzes:* Quizzes are basically "small exams" given with the intent of measuring how you are doing at the point in time that they are given. All quizzes will be announced at least one class meeting in advance, and there will be no make-up for missed quizzes, regardless of the reason.
- Assignments: Many days there will be an assignment **due at the start of class**. Often these will be designed for you to learn a new calculation from the book or videos. See the assignment expectations on the next page for additional information on assignments. Late assignments will not be accepted.
- *In-Class Activities:* Much of your time in class will be spent working both alone and as a member of a group, to practice methods and explore concepts. I will regularly collect work that you do in class, either alone or as a group, and grade it. **Such work cannot be made up.**

Grades will be computed from the above as follows:

- Each regular exam will be worth 100 points and the final exam will be worth 150 points.
- The total number of points possible for each student is 450 plus the total number of points earned on all quizzes, assignments and in-class activities.
- Each quiz, assignment or in-class activity point will be worth the same amount as each exam percentage point.

Your score will be your total number of points earned divided by *your* total number of points possible. Thus, every student will receive 100% on all quizzes, assignments and in-class activities, but the number of points earned that way will vary from student to student. For example, suppose that two students both earn 349 points on all the exams, but for quizzes, assignments and in-class activities Student A earns 83 points and Student B earns 27 points. Their grades are then

Student A : $\frac{349 + 83}{450 + 83} = \frac{432}{533} = 81\%$ Student B : $\frac{349 + 27}{450 + 27} = \frac{376}{477} = 79\%$

Letter grades are assigned using the scale 90-100% \Rightarrow A, 80-89% \Rightarrow B, 70-79% \Rightarrow C, 60-69% \Rightarrow D, and below that is an F.

Other Things of Importance:

- Incomplete Grades: An incomplete grade can only be assigned to you under the following circumstances:
 - 1. You are passing the course, or you are very close to passing AND have shown good effort (regular attendance, assignments turned in).

2. You have a SERIOUS problem that begins after the withdraw date and prevents you from being able to complete the term.

An incomplete grade will definitely not be assigned in the event that you are not performing well in the course and fear that you may not obtain a passing grade!

Disabilities: If you have a physical, learning, sensory or psychological disability and require accommodations, or you might need special arrangements in case the room or building must be evacuated, please let me know as soon as possible. You will need to register with, and, in most cases, provide documentation of your disability to Disability Services. Please contact Erin Ferrara, Coordinator of Disability Services at (541) 851-5227 or erin.ferrara@oit.edu. Disability Services is located in the Learning Resource Center, room 229.

Calendar: Below are some important dates for the term.

January 15th - Martin Luther King Day Holiday - no class

January 30th - Exam One

February 20th - Exam Two

February 23rd - Last day to withdraw with a "W"

March 13th - Exam Three

Thursday, March 22nd, 10:00 AM - 12:00 PM - Final Exam