MATH 256 CRN 62367-001, PSU Spring 2019

MWF 9:00 am–10:05 am FAB 171 Instructor: Joseph Bradford

Office: CPS 10

Office Hour: M 10:15–11:15 F 10:15–11:15

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Applied Diff Equat I, 4 Cr Solution techniques in ordinary differential equations; applications.

Prerequisites: Mth 252; Mth 261 or Mth 343.

<u>Text</u> Blanchard, Devaney, Hall, Differential Equations, 4th Edition.

<u>Calculator</u> I will be using the TI-89.

What The Course Covers

| Sec. 1.1-1.9 | 1st Order Diff Eqs |
|------------------------|---------------------|
| Sec. $2.1-2.4$ | 1st Order Systems |
| Sec. $3.1-3.6$, 3.8 | Linear Systems |
| Sec. $4.1-4.4$ | Forcing & Resonance |
| Sec. 5.1 | Equil. Points |
| Sec. $6.1-6.5$ | Laplace Transforms |

Grading

Your grade is based on 450 points, as follows:

| | | points |
|---------------|-------|------------|
| Homework | | 50 |
| Test 1 | | 75 |
| Test 2 | | 75 |
| Test 3 | | 75 |
| Mini-Projects | | 50 |
| Final | | <u>125</u> |
| | Total | 450 |

I plan to grade on straight percentages:

| | percentage | | grade |
|-----------|-------------|-------------|-------|
| 90 - 93.3 | 93.4 - 100 | | A /- |
| 80 - 83.3 | 83.4 - 86.6 | 86.7 - 89.9 | B+/- |
| | 70 - 76.6 | 76.7 - 79.9 | C+/ |
| 60 - 63.3 | 63.4 - 66.6 | 66.7 - 69.9 | D+/- |
| | below 60 | | F |

You may <u>not</u> make up a test. If you cannot make it to class on the day of the test you must contact me before class and we shall work something out. If no contact is made a zero will be given.

The final is comprehensive on Tuesday, June 11 at 8:00 am.

Homework problems will be assigned weekly. You may drop your lowest homework score.

Homework assignments need to be completed on time. There will be a 50% deduction for each calendar day a homework assignment is late.

Homework grading is based on two factors. You may receive 5 points for a complete assignment and you may receive 5 points for graded problems, picked at random. A partially completed assignment with incorrect answers will receive 0 points.

On the rare occasion that you miss a class, you may send your assignment as an email attachment. Please scan your assignment to a pdf file and then email as an attachment. Retain the hardcopy of your assignment for submission at the next class meeting.

Some aspects of this syllabus are tentative and may be changed to meet class needs.

Tutoring services are available in the Learning Center - 2nd floor of the PSU Library. See the math department for times.

Your cell phone must be in some sort of "silent mode" while you are in the classroom. You may not read or send text messages while class is in session. If there is an unusual situation where you simply must be able to read and/or send a message without delay, have your phone in vibrate mode and leave the room before reading and/or responding to the message. No other electronic devices (other than calculators) may be used during class without the express permission of the instructor.

Access and Inclusion for Students with Disabilities

PSU values diversity and inclusion; we are committed to fostering mutual respect and full participation for all students. My goal is to create a learning environment that is equitable, useable, inclusive, and welcoming. If any aspects of instruction or course design result in barriers to your inclusion or learning, please notify me. The Disability Resource Center (DRC) provides reasonable accommodations for students who encounter barriers in the learning environment.

If you have, or think you may have, a disability that may affect your work in this class and feel you need accommodations, contact the Disability Resource Center to schedule an appointment and initiate a conversation about reasonable accommodations. The DRC is located in 116 Smith Memorial Student Union, 503-725-4150, drc@pdx.edu, http://www.pdx.edu/drc

Important dates: April 7 last day to add online. May 19 last day to withdraw with a "W".

Title IX

Portland State is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment (sexual assault, domestic and dating violence, and gender or sex-based harassment and stalking). If you have experienced any form of gender or sex-based discrimination or harassment, know that help and support are available. PSU has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and on-housing accommodations, helping with legal protective orders, and more. Information about PSUs support services on campus, including confidential services and reporting options, can be found on PSUs Sexual Misconduct Prevention and Response website at: http://www.pdx.edu/sexual-assault/get-help or you may call a confidential IPV Advocate at 503-725-5672. You may report any incident of discrimination or discriminatory harassment, including sexual harassment, to either the Office of Equity and Compliance or the Office of the Dean of Student Life.

Please be aware that all PSU faculty members and instructors are required to report information of an incident that may constitute prohibited discrimination, including sexual harassment and sexual violence. This means that if you tell me about a situation of sexual harassment or sexual violence that may have violated university policy or student code of conduct, I have to share the information with my supervisor or the Universitys Title IX Coordinator or the Office of Affirmative Action. For more information about Title IX please complete the required student module Creating a Safe Campus in your D2L.

Tentative Calendar Math 256

| | Mon | Weds | Fri |
|---------|---------------|---------------|---------------|
| week 1 | 1 | 3 | 5 |
| | Sec. 1.1 | Sec. 1.2, 1.3 | Sec. 1.3, 1.4 |
| week 2 | 8 | 10 | 12 |
| | Sec. 1.4, 1.5 | Sec. 1.5, 1.6 | Sec. 1.6, 1.7 |
| veek 3 | 15 | 17 | 19 |
| | Sec. 1.7, 1.8 | Sec. 1.8, 1.9 | Test 1 |
| week 4 | 22 | 24 | 26 |
| | Sec. 2.1 | Sec. 2.2, 2.3 | Sec. 2.4, 3.1 |
| week 5 | 29 | 1 | 3 |
| | Sec. 3.1, 3.2 | Sec. 3.2, 3.3 | Sec. 3.3, 3.4 |
| week 6 | 6 | 8 | 10 |
| | Sec. 3.4, 3.5 | Sec. 3.6 | Test 2 |
| week 7 | 13 | 15 | 17 |
| | Sec. 3.8 | Sec. 4.1 | Sec. 4.2 |
| week 8 | 20 | 22 | 24 |
| | Sec. 4.3 | Sec. 4.3, 4.4 | Sec. 5.1, 6.1 |
| week 9 | 27 | 29 | 31 |
| | Holiday | Test 3 | |
| | No Class | | Sec. 6.2, 6.3 |
| week 10 | 3 | 5 | 7 |
| | Sec. 6.3, 6.4 | Sec. 6.4, 6.5 | Sec. 6.5 |

Final: Tuesday, June 11th at $8{:}00~\mathrm{am}$