MATH 252–003 CRN 41980, PSU, Winter 2020

MW 6:40 pm-8:30 pm LH 301

Instructor: Joseph Bradford
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Calculus II, 4 Cr Integral calculus of functions of a single variable, including the Fundamental Theorem of Calculus, numerical integration and applications. This is the second course in a sequence of three: Mth 251, Mth 252, Mth 253, which must be taken in sequence. **Prerequisites:** Mth 251, C- or above.

Suggested Textbook Rogawski and Adams, Calculus Early Transcendentals, 3rd Edition
ISBN (-10) 1-4641-1488-9

Calculator I will be using the TI-84 and TI-89.

What The Course Covers

Sec. 5.1−5.8	The Integral
Sec. 6.1−6.5	Apps. of the Integral
Sec. 7.1−7.3, 7.5−7.9	Techniques of Integration
Sec. 8.1, 8.3, 8.4	Arc Length & Taylor Polynomials

Grading

Your grade is based on 450 points, as follows:

	points
Online Homework	50
Quizzes 1 & 2 (no calculator)	50
Test 1	100
Test 2	100
Final	150
Total	450

I plan to grade from 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 not 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 Monday, March 16 at 7:30 pm.

WebAssign: You will need a WebAssign account in order to complete the homework assignments. The purchase of a new textbook from the PSU bookstore will come with an access code. If you choose to buy a used copy of the book, you will need to purchase an access code from www.webassign.net . DO NOT BUY A USED ACCESS CODE. The class key for this course is **pdx 7563 6920**

Tools/Technology: You should have a graphing calculator. I encourage the use of technology as an aid to solve problems; however, you may not use your smart phone on exams. You will need a graphing calculator for the exams. If you do not have a stand-alone calculator, you may check one out from the Millar Library to use on an exam.

Course Objectives: This is the second course in a sequence of three: Mth 251, Mth 252, and Mth 253 which must be taken in sequence. The course focuses on the basic integral calculus of real-valued functions of a single variable. This includes integration techniques, numerical integration, and applications of integrals.

Student Learning Outcomes: Upon completion of this course students will be able to:

- Interpret and evaluate Riemann sums for real-valued functions.
- Relate Riemann sums to definite integrals, and interpret these integrals as areas of planar regions.
- Apply properties of the definite integral to manipulate and simplify expressions.
- Understand net change as the integral of a rate.
- Approximate definite integrals numerically using Riemann sums, trapezoids, and Simpson's Rule.
- Evaluate improper integrals using limits and comparisons.
- Correctly employ strategies and techniques of integration, including substitution, integration by parts, partial fractions, and trigonometric substitutions.
- Model and solve several types of applications using integration for area, volume, density, work, and arc length.
- Approximate functions using Taylor polynomials.

Here are some tips to help you succeed in this class:

- Read the book. There are many great examples in the book and we won't have time to cover them all. I suggest skimming the relevant sections prior to each class meeting, then reading and reviewing examples before starting practice problems and homework.

- Attend all class meetings. Please keep in mind that if you miss class for any reason, you are responsible for coming to the next class prepared and caught up.

- Stay organized. You should have some type of notebook or binder to organize your work. If you have questions (for a classmate, tutor, or myself) you should be able to easily access your work.

- Ask questions, collaborate, and get help early. Visiting office hours, forming study groups, and utilizing online resources like Khan Academy, Geogebra, Desmos, etc. are great ways to get help if/when you need it. There is FREE tutoring at the Learning Center located on the second floor of the PSU Library, and also on the fourth floor of Fariborz Maseeh Hall.

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

Math tutoring by our graduate assistants takes place in the student lounge FMH 400.

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 , https://www.pdx.edu/drc

- If you already have accommodations, please contact me to make sure that I have received a faculty notification letter and discuss your accommodations.
- Students who need accommodations for tests and quizzes are expected to schedule their tests to overlap with the time the class is taking the test.
- Please be aware that the accessible tables or chairs in the room should remain available for students who find that standard classroom seating is not useable.
- For information about emergency preparedness, please go to the Fire and Life Safety webpage (https://www.pdx.edu/environmental-health-safety/fire-and-life-safety) for information.

Important dates: January 12 last day to add online. February 23 last day to withdraw with a "W".

Academic Integrity Academic integrity is a vital part of the educational experience at PSU. Please see the PSU Student Code of Conduct for the university's policy on academic dishonesty. A confirmed violation of that Code in this course will result in failure of the course.

Title IX Reporting 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 University's 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 252

	Monday	Wednesday
week 1	6 Sec. 5.1	8 Sec. 5.2
week 2	13 Sec. 5.3, 5.4	15 Sec. 5.4 , 5.5
week 3	20 Holiday No Class	22 Sec. 5.6, 5.7
week 4	27 Quiz 1 Sec. 5.7, 5.8	29 Sec. 6.1, 6.2
week 5	3 Test 1	5 Sec. 6.3, 6.4
week 6	10 Sec. 6.4, 6.5	12 Sec. 7.1
week 7	17 Sec. 7.2, 7.3	19 Quiz 2 Sec. 7.5, 7.6
week 8	24 Sec. 7.7	26 Test 2
week 9	2 Sec. 7.8, 7.9	4 Sec. 8.1 , 8.3
week 10	9 Sec. 8.3 , 8.4	11 Sec. 8.4
week 11	16 Final at 7:30 pm	