

TMATH 126

Spring Term 2017

UH 10:15-12:20 PM JOY 109
Lecturer: Ruth Vanderpool
Office Hours: see class calendar

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Course Description & Student Learning Objectives:

This is the third quarter in the calculus sequence. We will spend three weeks on Taylor polynomials and Taylor series, two weeks on vector geometry in three dimensions, and four weeks on multivariable differential calculus (double integrals in Cartesian coordinates).

By the end of the course students should be able to:

1. clearly define sequences and series to both scientific and non-scientific audiences
2. construct a Taylor approximation and use it to solve real world problems
3. describe vectors, lines, & simple surfaces mathematically in three-dimensional space
4. compute and interpret the meaning of the dot and cross product
5. apply multivariable calculus techniques to find tangent planes, linear approximations, local extrema, and volumes bounded by multivariable functions.

The course supports the following department Student Learning Objectives:

1. (Env. Sci.) Cultivate skills critical to interpreting scientific concepts for public understanding, including familiarity with the scientific method, information literacy, statistical data analysis, hypothesis formulation, and conceptual modeling, research project design and working collaboratively.
2. (Env. Sci.) Participate in engaged inquiry as a means of connection classroom learning to real-world environmental problem solving and establishing the skills needed for life-long learning.
3. (Env. Sci) Develop advanced scientific skills necessary to achieve an understanding of and solutions to environmental problems including physical and biological measurement techniques, statistical data analysis, hypothesis formulation and conceptual modeling, research project design and working collaboratively.
4. (PPE) Students will strengthen their analytic skills
5. (PPE) Students will develop their ability to write with style and precision.
6. (PPE) Students will become more competent with quantitative analysis.
7. (PPE) Student will develop their ethical and logical reasoning.

Useful Items:

- Text: Details, including some pricing data, is posted on the class website. Either:
Calculus: Early Transcendentals 6th ed. by Larson & Edwards. (978-1-285-85825-8)
- Calculators: You are welcome to use any kind of calculator on your homework, exams, and quizzes. However, devices able to access the internet and phones may *not* be used on quizzes and exams in this class.

Important Dates:

4/13	Exam I	4/2	Last day alter your schedule with no fees
5/4	Exam II	4/7	Last day to add a class
6/8	Final (9:00-11:30am)	5/14	Last day to change grading option

Grades: The following weights will be used to calculate your percentage in the course. The function f takes your percentage in the course and returns your grade on a 4. scale.

WeBWork assignments	15%	$f(x) = \begin{cases} 4.0 & \text{if } 90 < x \\ .1x - 5 & \text{if } 57 \leq x \leq 90 \\ 0 & \text{if } x < 57 \end{cases}$
Written Homework	15%	
Quizzes	15%	
2 Exams	30%	
Final	25%	

Quizzes:

A quiz is given every week at the instructor's discretion. Generally you will be given 20 to 25 minutes on Thursdays for each quiz. The quiz will be over the written homework turned in the day before on Wednesday. You may use a 3×5 " one-sided notecard with anything that you like written or typed on it for each quiz.

No make up quizzes, unless previously arranged, will be given, but I will drop the lowest scoring quiz so that you have some flexibility.

Outside Resources:

Come visit me if you have questions! If you are unable to attend my posted office hours but would like to meet, please let me know. I am willing to try and work with your schedule. Also remember that you are not alone in this class and your peers are a valuable (and often underutilized) resource.

The Teaching & Learning Center (TLC), located in Snoqualmie 260 can offer additional help. In particular math tutors are available regularly Monday through Thursday from 9am-7pm and Fridays 9am-3pm. Complete information, hours, and updates are available at <http://www.tacoma.uw.edu/teaching-learning-center/teaching-learning-center>.

Homework Policy:

Two homework assignments will be posted every week on WebAssign. One assignment will be due at 4pm on *Wednesday* and the second will be due at 4pm *Friday*. Each assignment will be announced in class and posted on the calendar (found on the class website <http://faculty.washington.edu/rvanderp/>). *Both assignments are due on days that the class does not meet.* Each time we meet ten minutes will be set aside to answer homework questions from the online system. To make the best use of this period I advise you to copy down the questions you have and bring them to class. Note that sometimes WebAssign randomizes the numbers so that individuals may have slightly different problems. Thus, when answering questions I may not be considering your specific problem, however the techniques I use will usually still apply.

To access WebAssign follow the steps below:

1. Browse to WebAssign through the course website or manually type in the address: <http://webassign.net/login.html>
2. Click on “I have a Class Key” button.
3. Enter “uwt 8356 0253” and hit Submit.
4. If you already have a WebAssign account, type in your login information, if not, create an account and log in. Note that your institution should be “uwt”.
5. If you cannot log into WebAssign, email me as soon as possible. You will not be granted extensions if you cite accessibility issues in the few hours before an assignment is due.

When you first log in you will see a notice about a grace period and payment options. You can register with an Access Code card (available in the enhanced WebAssign textbook) or you can buy an Access Code online with a credit card. After the grace period you will again see the notice and you will not be able to continue without entering an Access Code.

I suggest you post any homework questions on the WebAssign forum labeled “WebHW Questions & Help”. This discussion board gives you a place to discuss any homework problems that were not addressed in class and, if answering a question correctly, will earn you extra credit on your homework scores.

Hand written assignments will also be assigned during the week and collected on *Wednesdays*. An additional ten minutes of class on Tuesday will be reserved to address questions from the handwritten assignments. *If completed early, you may turn these in to the Homework folder on Tuesday at the end of class, otherwise slide your stapled assignment under my office door in MDS 303C by 4pm on Wednesday.*

If you miss class it is your responsibility to find out what material and homework you are responsible for. Your homework is expected to be written up neatly, clearly, and completely. Partial credit is given on individual problems, but you will have no opportunities to rewrite, edit, or correct your homework for additional points, so I suggest that you turn in a revised copy of your homework (as opposed to the first draft) that has your final answer and it's supporting work well organized and easy to read.

Late homework will not be accepted, but I will drop the lowest homework so that you have some flexibility.

Notes:

- I do *not* check my email after 4pm. Any questions sent to my email after 4pm may not receive a response until the next morning. The University's e-mail policy is posted at: <http://www.tacoma.uw.edu/information-technology/uw-tacoma-email-policy>
- Bias Reporting: Report an incident of bias or explore how to effectively respond by visiting <http://www.tacoma.uw.edu/reportbias>.
- UW Tacoma is committed to making physical facilities and instructional programs accessible to students with disabilities. Disability Resources for Students (DRS), located in MAT 354, functions as the focal point for coordination for students with disabilities. If you have a physical, emotional, or mental disability that "substantially limits one or more major life activities [including walking, seeing, hearing, speaking, breathing, learning and working]," and require accommodation in this class, please contact DRS at (253)692-4508, email at drsugt@uw.edu or visit <http://www.tacoma.uw.edu/drsugt>.
- The Counseling Center offers short-term, problem-focused counseling to UW Tacoma students who may feel overwhelmed by the responsibilities of college, work, family, and relationships. Counselors are available to help students cope with stresses and personal issues that may interfere with their ability to perform in school. The service is provided confidentially and without additional charge to currently enrolled students. To schedule an appointment, call 253-692-4522 or stop by the Student Counseling Center (SCC), located in MAT 354.
- Campus Safety Information: <http://www.tacoma.uw.edu/campus-safety/home>. Safety escorts are available 24 hours a day, 7 days a week, there is no time limit. Call the main office line at 253-692-4416.
- Inclement Weather: Always check the UW Tacoma Home Page: official campus closures or delays will be announced there first. Course Announcements and Email regarding assignments and expectations during a closure will follow.
- Infants/Children in Class Policy: If you have no choice but to bring a child or children with you to class, please let me know prior to class. You will be responsible for seeing that the child or children are not disruptive to the class. If you are breastfeeding an infant or expressing milk regularly, you may bring an infant or breast pump to class. If you prefer to breastfeed or breast pump outside of class, you may take time out of class to use the lactation room (GWP 410).
- To plagiarize is to use the ideas-or unique phrasings-without acknowledging that they come from someplace other than you. At the UW Tacoma, plagiarism is a violation of the student conduct code and the consequences are serious. If you have questions about what amounts to plagiarism, seek guidance from faculty and the TLC.
- While I have attempted to make this syllabus as complete as possible, adjustments will be made throughout the course. Announcements will be made during class and it is the responsibility of the student to keep updated if class is missed.