

# TMATH 124

# Winter Term 2011

UH 4:15-6:20 PM GWP 101  
Lecturer: Ruth Vanderpool  
Office Hours: Tues 3:00-4:00PM

SLN 19423 /19463  
Office: GWP 430  
Phone: 253-692-4310

e-mail: [rvanderp@u.washington.edu](mailto:rvanderp@u.washington.edu)  
<http://faculty.washington.edu/rvanderp/>

## Course Description & Objectives:

TMATH 124 is a calculus course studying the mathematics of motion and change and its applications. Topics include advanced functions and their limits, maximums and minimums, rates of change (derivatives), and areas (integrals).

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

1. apply precalculus concepts in the calculus setting to solve problems
2. compute limits
3. determine if a function is continuous
4. find the derivative using its definition
5. differentiate algebraic, exponential, trigonometric, and logarithmic functions, as well as combinations of these functions and their inverses
6. apply differentiation techniques to find tangent lines, rates of change, and local extrema
7. set up and solve related rates and optimization problems
8. apply differentiation to find information about a function's graph
9. demonstrate the relationship between derivatives and integrals by applying the Fundamental Theorem of Calculus

## Useful Items:

- Text: Details including the ISBN and some pricing data is posted on the class website. *If you plan to take TMATH 125 and 126 you need:*  
*Calculus: Early Transcendentals* 6<sup>th</sup> ed. by James Stewart.  
*If you are not going to take TMATH 126 you can use:*  
*Single Variable Calculus: Early Transcendentals* 6<sup>th</sup> ed. by James Stewart.
- Calculators: You are welcome to use any kind of calculator on your homework, but only scientific calculators are allowed for exams and quizzes. In particular, graphing calculators, devices able to access the internet, and phones may *not* be used on quizzes and exams in this class.

## Important Dates:

1/25	Exam I	1/9	Last day alter your schedule with no fees
2/15	Exam II	1/14	Last day to add a class
3/17	Final (4:15-6:-20pm)	2/20	Last day to change grading option

## Homework Policy:

Two homework assignments will be posted every week on WebAssign. One assignment will be due at 8pm on *Tuesday* and the second will be due at 8pm *Friday*. Each assignment will be announced in class and posted on the calendar (found on the class website <http://faculty.washington.edu/rvanderp/>). *Some 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. Your username is the part of your u.washington.edu email before the @ symbol, followed by “.1”. For example: If Maurits Escher had the email address tessellate@u.washington.edu, his username would be “tessellate.1”.
3. Your institutional code is UWT, and your initial password is the same as your username. Keep in mind that passwords are case sensitive. *Be sure to change your password* by clicking on ‘My Options’ link in the upper right corner before you log out.
4. 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, can earn you extra credit on your homework scores.

Hand written assignments will also be assigned but *not* collected. An additional ten minutes of class on Thursdays will be reserved to address questions from the handwritten assignments.

## Quizzes:

A quiz is given every week at the instructor’s discretion. Generally you will be given 25 to 30 minutes at the end of class on Tuesdays for the quizzes. You may use any written homework that you generated during the previous week during the quiz. This may include the written assignments from the book or work done while completing any WeBWork assignments.

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

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	20%
Quizzes	20%
2 Midterms	35%
Final	25%

$$f(x) = \begin{cases} 4.0 & \text{if } 90 < x \\ .1x - 5 & \text{if } 57 \leq x \leq 90 \\ 0 & \text{if } x < 57 \end{cases}$$

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.washington.edu/policies\\_procedures/E-mail\\_Policy.pdf](http://www.tacoma.washington.edu/policies_procedures/E-mail_Policy.pdf)
- The University of Washington Tacoma is committed to making physical facilities and instructional programs accessible to students with disabilities. Disability Support Services (DSS) functions as the focal point for coordination of services for students with disabilities. In compliance with Title II of the Americans with Disabilities Act, any enrolled student at UW Tacoma who has an appropriately documented physical, emotional, or mental disability that “substantially limits one or more major life activities [including walking, seeing, hearing, speaking, breathing, learning, and working],” is eligible for services from DSS. If you are wondering if you may be eligible for accommodations on our campus, please contact the DSS reception desk at 692-4522.
- 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 undergraduate and graduate students. To schedule an appointment, please call 692-4522 or stop by the Student Counseling Center (SCC), located in MAT 253.
- Safety Escorts are available Monday - Thursday 5:00pm - 10:30pm. They can be reached either through the duty officer or by dialing #300 from a campus phone. Additional safety information and emergency procedures is available at <http://www.tacoma.washington.edu/security>.
- 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.

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 can offer a number of additional instructional services. Additionally math tutors are available regularly Monday through Thursday. Complete information, hours, and updates are available at <http://www.tacoma.washington.edu/tlc/>.