TMATH 115 Winter Term 2020

MW 1:30-3:30pm JOY 105 SLN 21277/21278
Lecturer: Ruth Vanderpool Office: MDS 303C
Office Hours:M&W 11:00-noon Phone: 253-692-4310
@ TLC Snoqualmie 2nd floor

e-mail: rvanderp@u.washington.edu
http://faculty.washington.edu/rvanderp/

Course Description: TMATH 115 is a pre-calculus course intended to prepare you for calculus. To this end we will introduce the concept of a function, its notation, and prepare students to work with piece-wise, exponential, logarithmic, polynomial, and rational functions. This course emphasizes computational skills, graph reading, and problem solving. One of a two-part series. Maximum of 10 credits from TMATH 115, TMATH 116, and TMATH 120 may be counted.

Student Learning Objectives: By the end of the course students should be able to:

1. apply algebraic concepts in the precalculus setting to solve problems
2. read, interpret, identify, and generate graphs of elementary functions
3. model common behaviors in business and the sciences using linear, quadratic, exponential, polynomial or rational functions
4. use properties of logs and exponents to answer questions

The course supports the following department Student Learning Objectives across campus:

- (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, & *conceptual modeling*, research project design & working collaboratively. a
- (Env. Sci.) *Participate in engaged inquiry as a means of connection classroom learning to real-world* environmental *problem solving & establishing the skills needed for life-long learning.*
- (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 & working collaboratively.
- (PPE) *Students will strengthen their analytic skills*
- (PPE) *Students will develop their ability to write with* style and *precision.*
- (PPE) *Students will become more competent with quantitative analysis.*
- (PPE) *Student will develop their* ethical and *logical reasoning.*
- (Info. Tech. & Sys.) *Students will be able to apply knowledge of* computing and *mathematics, appropriate to the discipline.*

Useful Items:

- Text: *Precalculus A Unit Circle Approach, 3nd Ed.* by Ratti & McWaters.
- Access to online homework system, MyMathLab.
  Resources for purchasing the text & MyMathLab access are posted on the class website.
- Calculators: The mathematics program recommends the TI-36X Pro. Scientific calculators, graphing calculators, and applications on smart devices that limit access to the internet (such as Desmos Test Mode) are encouraged. You may *not* use devices that can access the internet when taking quizzes or exams. The following resources exist:

Location	Type/Model	# Available	Duration of Checkout
Library	TI-36X Pro (non-graphing)	20	1 day
Library	TI-83 (graphing)	30	1 day
Library	TI-83 (graphing)	30	4 weeks

Important Dates:

1/29	Exam I	1/10	Last day alter your schedule with no fees
2/19	Exam II	1/26	Last day to add a class
3/16	Final (1:30-3:30pm)	2/23	Last day to change grading option

Opportunities for Mastery: The details will follow but please note the *many* avenues available to master the material!

- Mini Quizzes, WrittenHW & MyMathLabHW allow multiple attempts for full credit.
- Discussion board responses improve WrittenHW or MyMathLabHW averages.
- Group presentations before each exam can add up to 4% to your exam scores.
- Response to math related articles available on day of exams 1 & 2.

Social Expectations: You are expected to work regularly with others in this class and thus need to make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

Activity Procedure: Activity sheets are used almost every day of class to give you an opportunity to work with the material. *Usually* these will not be collected or marked but the group will be asked to post their work & answer to one of the questions on the board. This will allow the class to see the answer as well as other methods to solving problems. (There is *always* more than one way to find a solution!)

Mini Quizzes: Small five minute quizzes emphasizing computational skills will be given every day. Practicing these skills will decrease the number of mistakes on exams and thus increase overall scores. The mini-quizzes will be administered until the class average is above 75%. Make up mini-quizzes are not given and only the top score will contribute to your grade.

Homework Policy:

Two homework assignments will be posted every week on MyMathLab. The assignments will be due at 1:30pm on Tuesdays and Thursdays. Each assignment will be announced in class and posted on the calendar (found on the class website `http://faculty.washington.edu/rvanderp/`). 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 MyMathLab 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 MyMathLab follow the steps below:

1. Browse to MyMathLab through the course website or manually type in the address: `http://www.pearson.com/mylab`
2. Under Register, click **Student**
3. Enter "vanderpool79029" and hit **Continue**.
4. Sign in with an existing Pearson account or create an account:
5. If you already have a Pearson account, type in your login information, if not, create an account and log in.
6. If you cannot log into MyMathLab, email me as soon as possible. You will not be granted extensions if you cite accessibility issues right 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 MyMathLab 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 to continue without entering an Access Code.

I suggest you post any homework questions on one of the MyMathLab discussions. These discussion boards gives you a place to discuss any homework problems that were not addressed in class and, if answering a question correctly, earn you extra credit on your homework scores. You may also request WebHW extensions as they are given freely.

Hand written assignments will also be collected on *Tuesdays*. Note, the written homework is due on a day that class does *not* meet! An additional ten minutes of class on Mondays will be reserved to address questions from the handwritten assignments. *If completed early, you may turn these in to the Homework folder on Monday at the end of class*, otherwise slide your *stapled* assignment under my office door in MDS 303C by 1:30pm on Tuesdays.

You are responsible to find out what material was covered and assignments given if you miss class. Your homework is expected to be written up neatly, clearly, and completely. No partial credit is given on individual problems so make your final answer and its required supporting work, easy to find and identify. No extensions are given for written homework.

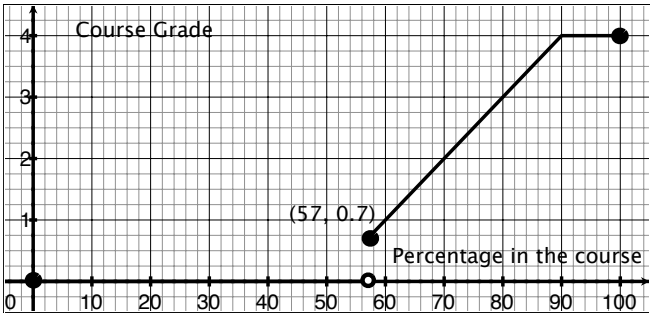
After the class receives their corrected homework you have one week to turn in a rewrite that can earn full marks. Answers are marked only as right or wrong so you are responsible for finding and correcting your mistakes. I am available to help answer questions during drop-in hours, but no additional class time will be dedicated to that homework assignment.

Rewrites must be clearly marked as such and stapled on top of the original work with the section number clearly visible.

Quizzes: A quiz is given every week at the instructor's discretion. Generally you will be given 15 minutes for the quizzes after the homework question period is over on Wednesdays. 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 graphed takes your percentage in the course and returns your grade on a 4. scale.

Mini-Quizzes	5%
WeBWork assignments	10%
Handwritten assignments	15%
Quizzes	15%
2 Exams	30%
Final	25%



Outside Resources:

Come visit me in the TLC (Snoqualmie 260) for Drop-In hours! If you are unable to make those, please let me know and I will try to work with your schedule. Also remember that you are not alone in this class and your peers are a valuable (and often underutilized) resource.

Visit the Teaching & Learning Center (TLC)! Math tutors are available Monday through Thursday from 9am-7pm and Fridays from 9am-3pm. Complete information is available at `http://www.tacoma.uw.edu/teaching-learning-center/teaching-learning-center`.

Notes: There is *so* many things to say here!!! A complete list is posted at `https://www.tacoma.uw.edu/faculty-assembly/syllabi-service-statements` but a few are highlighted below.

- I do *not* check my email or the discussion boards after 4pm. Any homework questions, discussion board posts, or requests for an extension sent to my email after 4pm may not receive a response until the next morning.
- 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.
- Bias Reporting: Report an incident of bias or explore how to effectively respond by visiting `http://www.tacoma.uw.edu/reportbias`.
- The University of Washington Tacoma is committed to making physical facilities and instructional programs accessible to students with disabilities. Disability Support Services (DSS), located in MAT 354, functions as the focal point for coordination of services 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 will require accommodation in this class, please contact DSS at (253) 692-4508, email at dssuwt@uw.edu, uwtshaw@uw.edu or visit www.tacoma.uw.edu/dss for assistance.

- 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 253-692-4522, email uwtshaw@uw.edu, or stop by the Student Counseling Center (SCC), located in MAT 354. Additional information can also be found by visiting www.tacoma.uw.edu/counseling.
- 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.
- Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UWs policy, including more information about how to request an accommodation, is available at Faculty Syllabus Guidelines and Resources. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form available at `https://registrar.washington.edu/students/religious-accommodations-request/`.