

Course Syllabus

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TMath 120 Course Syllabus

- Winter Term 2023 (SLN 21635/21636)
- Instructor: Ruth Vanderpool
 - Best method to contact: Canvas Discussions
 - Secondary contact method: email rvanderp@uw.edu (<mailto:rvanderp@u.washington.edu>)
 - Social Hours:
 - Times: Tuesday 1:30-2:30pm & Wednesday 11:30-12:30pm
 - Place: Teaching & Learning Center (TLC) 2nd floor of Snoqualmie building
 - Remote Option: Let me know through email and then log into: <https://washington.zoom.us/my/rvanderp> (<https://washington.zoom.us/my/rvanderp>)

Class Time:

- Tuesday & Thursday 8:00-10:00am
- Location:
 - In person: Joy 105
 - Remote access: <https://washington.zoom.us/j/99591227764> (<https://washington.zoom.us/j/99591227764>)

Course Description:

TMath 120 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 then work with polynomial, exponential, logarithmic, trigonometric, and inverse trigonometric functions. Note, to progress to TMATH 124 you need to obtain a 2.0.

Available Alternatives:

The failure rate of TMATH 120 is high. There are lots of reasons for this, but many believe this is due to the sheer amount of material you are expected to learn in ten weeks. Consider taking the alternative, more reasonably paced, two-quarter sequences of TMATH 115 and TMATH 116.

Prerequisites:

Prerequisite Content Knowledge: Familiarity of elementary functions such as polynomial, exponential, logarithmic, trigonometric, and inverse trigonometric functions. Mastery can be verified by one of the following:

- 2.0 in TMath 98, or
- Score of 42-120 on UWT math placement test

Prerequisite Technical Knowledge: General familiarity with computers, email systems, accessing the internet, installing software, and manipulating/digitizing files. Specific requirements for this class are posted in the [Computer Requirements](https://www.google.com/url?q=https://docs.google.com/document/d/14zc6MFDMUQJkLa_USNusYD6VfoThLsC0Zca5SjucebU/edit&sa=D&ust=15850076736680) (https://www.google.com/url?q=https://docs.google.com/document/d/14zc6MFDMUQJkLa_USNusYD6VfoThLsC0Zca5SjucebU/edit&sa=D&ust=15850076736680) page of the Technology Module.

Course Objectives:

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

- apply algebraic concepts in the precalculus setting to solve problems

- read, interpret, identify, and generate graphs of elementary functions
- create linear, quadratic, polynomial, or exponential functions to describe common behaviors in business and the sciences
- use properties of logs and exponents to answer questions
- understand how to use trigonometry (trigonometric functions, inverse-trigonometric functions, identities, Law of Sines & Law of Cosines) to solve problems.

Rights of the Learner:

As a student in this class, you have the right:

- to be confused,
- to make a mistake and to revise your thinking,
- to speak, listen, and be heard, and
- to enjoy doing mathematics.

Opportunities for Mastery:

- MyMathLabHW allow multiple attempts for full credit.
- MyMathLabHW assignments are easily extended up until the day before exams so that you can improve your score.
- Discussion board responses improve WrittenHW or WebHW averages.
- Two-stage quiz structure allows for improving quiz scores immediately.
- All WrittenHW's can be turned in a second time to improve score.
- Group presentations before each exam can add up to 4% to your exam scores.

Expectations for the Instructor:

- Communicate with you through Canvas (discussion boards, announcements, posted grades), emails, online homework systems, and in-person during social hours & class. Note that class materials are provided a week in advance.
- Foster a supportive environment for learning math!
- Provide a consistent course structure with regular feedback (before you are even quizzed on the material!).

Expectations for the Student:

- Pay attention to announcements made and develop a processes to turn in work that meets the class's requirements.
- When interacting with each other, be thoughtful and follow the communications/netiquette expectations so that we foster a supportive environment.
- Be prepared for class and learn some math!

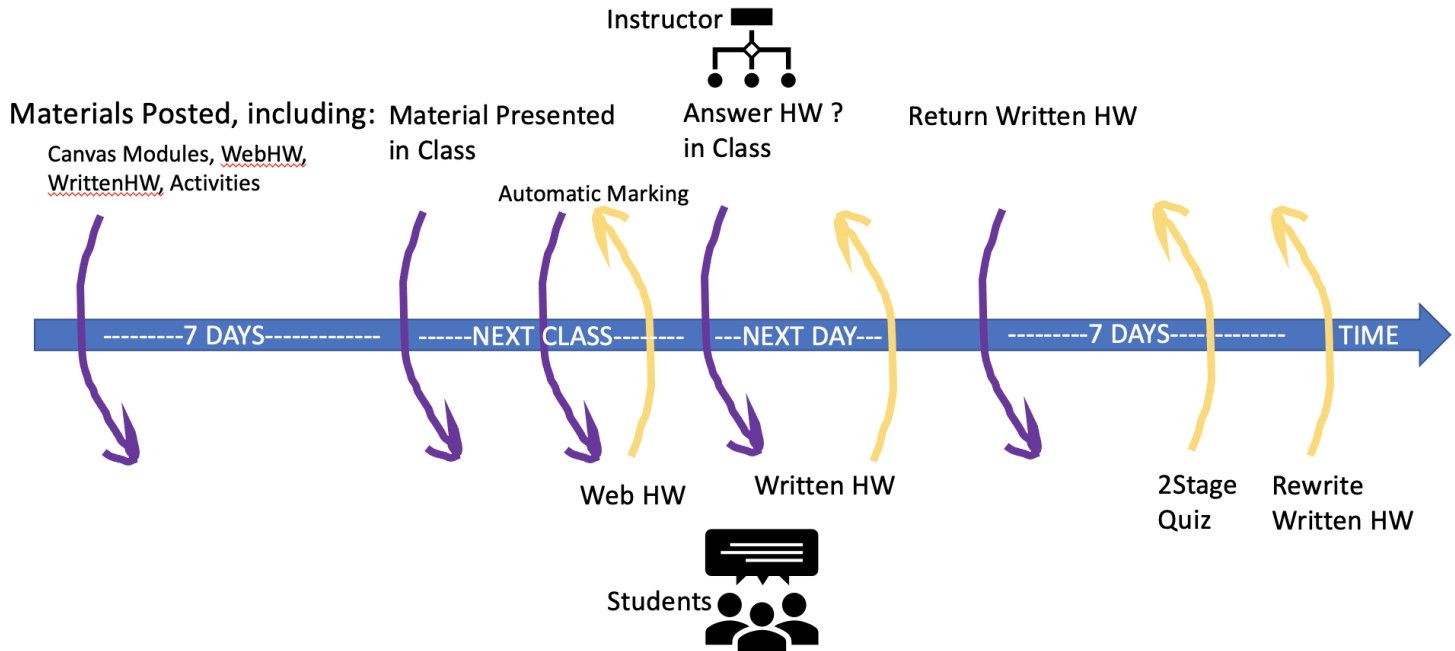
Required Items:

- Textbook: *Precalculus A Unit Circle Approach*, 3rd Ed. by Ratti, McWaters & Skrzypek.
- MyMathLab access (online homework system), and a system meeting the technology requirements posted in the Technology Info Module. (More details about the required items, including textbook ISBN #'s are posted [here](http://faculty.washington.edu/rvanderp/Teaching/Archives/120Fall_22/PrecalcTextWinter19.pdf) (http://faculty.washington.edu/rvanderp/Teaching/Archives/120Fall_22/PrecalcTextWinter19.pdf).
- Calculators: Either scientific or graphing are welcome. Although no internet is allowed in the first stage of the quizzes, you are welcome to use Desmos Test Mode on a smart device if you have one.

Tentative Schedule:

Upcoming due dates for assignments and exams are posted in the "Coming Up" section on the right side of your screen immediately after you log into Canvas. The due dates for the entire course are listed at the bottom of this Syllabus and can also be found on the Calendar link (in the purple menu on the left). Details about topics to learn, material to review, and projects that need work are posted in Daily Modules (whose link is always available on the left when in the TMath 120 Canvas course) and summarized in the "Objectives & Tasks" page.

There is a general structure to for this course that is summarized in the following figure. Note that there are built in delays from when material is introduced to when students are expected to master it. The details are provided in the Homework and Quiz section of the syllabus.



Evaluation/Grading:

Specific weights for homework and exams are posted [here \(https://www.google.com/url?q=https://docs.google.com/document/d/1W2o8YwMfAdYbkc62qoLFBtV8UfxxPC6BEfUvRpZyA-k/edit&sa=D&ust=1585007673671000\)](https://www.google.com/url?q=https://docs.google.com/document/d/1W2o8YwMfAdYbkc62qoLFBtV8UfxxPC6BEfUvRpZyA-k/edit&sa=D&ust=1585007673671000).

Communications/Netiquette:

Regular and respectful communication with classmates and the instructor is expected. General communications policies and netiquette are posted [here](#). Specific in class and student focused communication policies are listed at the top of each Activity that is provided.

The due dates for the required WrittenHW, WebHW, Quizzes, and Exams will appear in the "Objectives & Tasks" page in the daily Module (mainly the "Coming Up" section when you first log in and on all course calendars).

Participation:

Full participation marks can be earned with 5 participation points collected throughout the term. To earn a participation point you can post a complete solution to one of the problems from an Activity either on the board in class or on its corresponding Canvas discussion. If there is already a solution to a problem posted you may post another but you should first make sure that your method is different than that already presented (since there are **always** different ways to find a solution!). This is most easily done during the class time but can be done until noon the following day on the Canvas discussion and still receive participation credit.

MiniQuizzes:

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 from each set is recorded.

Homework Policies:

Three homework assignments are due every week. Two are posted through the online homework system MyMathLab (<https://www.google.com/url?q=https://www.webassign.net/login.html&sa=D&ust=1585007673673000>), and one is handwritten and electronically submitted through Canvas.

- WebHW: Two homework assignments will be posted every week on MyMathLab. One assignment will be due at noon on Wednesday and the second will be due at noon Friday. All assignments are posted on the class calendar. (More details about access, help, and policies for online homework are posted [here.](#))
- WrittenHW: Handwritten assignments will also be assigned weekly and are due at noon on Wednesdays. (More details about written homework scheduling, formatting, and grading are posted [here.](#))

Quiz Policy:

Quizzes are administered in a two-stage process on Thursdays during class.

In the first stage, students have 15 minutes to take the quiz with a non-internet accessing calculator but without notes, books, internet resources, or collaboration.

The second stage again gives students 15 minutes to take the (same!) quiz, but now with open notes, open book, and collaboration with a student group of up to two others. After 15 minutes, one copy of the completed quiz is turned in.

The marks recorded for your quiz will be the higher of the two options:

1. the score from the individual stage-one of the quiz, or
2. the average of your individual stage-one quiz and the group completed stage-two quiz.

Students who are unable to make the in-person scheduled quiz need to contact the instructor ASAP to arrange for alternative arrangement. Once the key's have been published no make-up quiz is possible.

Exam Policy:

The dates of the exams are **Thursday Jan. 26th & Thursday Feb 16th**. Exams are to be done individually in the classroom. Notes, books, internet tools and collaboration are not allowed for these exams. The final exam is **Tuesday March 14th** and will be a two-hour comprehensive proctored exam.

Make-up tests will only be given for absences deemed justifiable by the instructor (e.g., illness, family emergency), and may be considerably more difficult than the original test. If you must be absent for an exam, I will only give a make-up exam if notified in advance.

Getting Help:

(<https://www.google.com/url?q=https://docs.google.com/document/d/1h-9ks1Rj1AswJswN4ggjn-veRxVH9WkAfS6Cu89JCHY/edit&sa=D&ust=1585007673675000>) Many resources exist, are available, and are intended to help you with math, technology, and personal issues and questions. A few of the most helpful are listed: [Getting Help](#)

Tips for Success:

A few, class-specific things to do that will help you get the most out of this class.

General Policies:

(https://www.google.com/url?q=https://docs.google.com/document/d/1FjxC22UgjVM7JT_2e6DHKSpk5ZWdIEVUU34AJlhQMhY/edit&sa=D&ust=158500767367700) Campus-wide and class policies regarding inclement weather and emergency procedures are posted [here](#).