# Course Syllabus At

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# TMath 120 Course Syllabus

- Autumn Term 2021 (SLN 22525/22526)
- Instructor: Ruth Vanderpool
- · Best method to contact: Canvas Discussions
- Secondary contact method: email <u>rvanderp@uw.edu (mailto:rvanderp@u.washington.edu)</u>
- · Social Hours:
  - o Times:Monday 11:00-11:30am, Tuesday 2:30-3:30pm, Thursday 2:30-3:30pm & Friday 8:50-9:20am
  - In person: @ Teaching & Learning Center (TLC) 2nd floor of Snoqualmie building
  - If remote: <u>https://washington.zoom.us/my/rvanderp@ (https://washington.zoom.us/my/rvanderp)</u>

#### **Class Time:**

- Monday, Wednesday, & Friday 9:30-10:50am
- Location:
  - In person: Joy 106
  - If remote: Zoom meeting ID: 966 3290 3726 with UW authentication required and linked on Canvas Calendar.

#### **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 <u>Computer Requirements</u> (<u>https://www.google.com/url?</u>

<u>q=https://docs.google.com/document/d/14zc6MFDMUQJkLa\_USNusYD6VfoThLsC0Zca5SjucebU/edit&sa=D&ust=15850076736680(</u> 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 MyMathLabHW averages.
- · Two-stage quiz structure allows for improving quiz scores immediately.
- Existing tokens that allow for either a late WrittenHW submission or WrittenHW regrade.
- 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 <u>here</u> at <u>(http://faculty.washington.edu/rvanderp/Teaching/120Fall\_21/PrecalcTextWinter19.pdf)</u>.)
- 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 table. More details are provided in the Homework and Quiz section of the syllabus.

Materials	<u>7 days</u>	material	<u>2 days</u>	answer	<u>1 day</u>		Marked HW returned	Quiz on material
posted		introduced		questions on				
online		in class		material				

## **Evaluation/Grading:**

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

### **Communications/Netiquette:**

Regular and respectful communication with classmates and the instructor is expected. Required discussions and video presentations will be made explicit on the "Objectives & Tasks" page in the weekly Module that they are assigned. The due dates for the required communications will appear in the same locations as the due dates for WrittenHW, WebHW, and exams (mainly the "Coming Up" section when you first log in and on all course calendars). These required communication assignments are designed to build technical skills so that you can make use online resources such as the TLC's online tutoring service. General communications policies and netiquette are posted <u>here.</u>

### **Participation:**

Full participation marks can be earned with 5 participation points collected throughout the term. To earn a participation point you must 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 8pm the following day and still receive participation credit.

## **Homework Policies:**

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

- WebHW: Three homework assignments will be posted every week on MyMathLab. The three assignments will be due at 8pm on Tuesday, Thursday, and Saturday. All assignments are posted on the class calendar. (More details about access, help, and policies for online homework are posted <u>here.</u>)
- WrittenHW: Handwritten assignments will be assigned weekly and are due at 8pm on Tuesdays. (More details about written homework scheduling, formatting, and grading are posted <u>here.</u>)

#### Tokens:

You start the quarter with 3 tokens.

- You may exchange one token for the opportunity to *rework and resubmit a WrittenHW*. The new points earned will be added to the original score.
- You may exchange one token to submit a late assignment without penalty.

Late assignments without tokens will be penalized 50%.

At the end of the quarter, any unused tokens will accumulate extra credit towards your score on the final exam.

## **Quiz Policy:**

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

In the first stage, students have 15 minutes to take the quiz 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 an assigned student group. 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.

If the class (or instructor) needs to switch the class to a remote setting, there will be two additional 15 minute sessions between the stages so that student can convert their work into pdf's and turn them into Canvas. Group work will still occur through breakout rooms.

#### **Exam Policy:**

The dates of the exams are **Friday October 22nd & Friday November 12th.** Exams are to be done individually within the assigned class time while proctored either in the classroom or monitored through zoom. Explicitly this means notes, books, internet tools and collaboration are not allowed for these exams. The final exam is **Wednesday December 15th** 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.

If remote: a device that can connect video through the class zoom meeting must be secured for the exam dates. Many computers and smart phones suffice but also note that UWT has laptops that are still available for an extended checkout period. During the exam the camera connected to zoom will be pointed at your hands so that your progress can be monitored. If you use Desmos TestMode you will need to make sure the video connection is made on a separate device than the one running Desmos TestMode.

If remote, the exams will be provided in a pdf format through email and Canvas and can be printed (if a printer is convenient) or remain on the screen of an internet accessing device while you write your answers on a separate sheet. Submission through Canvas will have the same protocol as WrittenHW.

### <u>Getting Help:</u>

#### **Tips for Success:**

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

### **General Policies:**

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<u>q=https://docs.google.com/document/d/1FjxC22UgjVM7JT\_2e6DHKSpk5ZWdIEVUU34AJIhQMhY/edit&sa=D&ust=15850076736770(</u> Campus-wide and class policies regarding inclement weather and emergency procedures are posted <u>here</u>.

# Course Summary:

Date

Details

Due