


Course Syllabus [▲]

[Jump to Today](#)  Edit

TMath 344 Course Syllabus

- Winter Term 2025 (SLN 21660)
- Instructor: Ruth Vanderpool
 - Best method to contact: Class (when in-person) or Canvas Discussions (when remote)
 - Secondary contact method: email [rvanderp@uw.edu \(mailto:rvanderp@u.washington.edu\)](mailto:rvanderp@uw.edu)
 - Drop-In Office Hours:
 - Times: Tuesdays & Thursdays 11:30-12:30pm & by request
 - In person @ Teaching & Learning Center (TLC) 2nd floor of Snoqualmie building
 - Remote if requested at: <https://washington.zoom.us/my/rvanderp>  (<https://washington.zoom.us/my/rvanderp>)

Class Time:

- Tuesday & Thursday 8:00am-10:00am
- Location:
 - In person: Joy 109
 - If remote: Zoom meeting linked on Canvas Calendar.

Required Items:

- Textbook: Origametry by D. Heath. ISBN: 9789888407156
- system meeting the technology requirements posted in the Technology Info Module.
- (optional) non-internet accessing calculators or Desmos Test Mode on smart devices

Course Description:

Covers fundamentals of geometry. Presents an axiomatic treatment of geometry, including Euclidean and non-Euclidean geometry. Describes the role of Euclid's Fifth Postulate in development of non-Euclidean geometries. Develops student's ability to write rigorous proofs.

Another Description: Geometry is one of the oldest branches of mathematics, with most traditional topics originating in the work of the ancient Greeks-though significant work was done in other and older societies. We will pursue a deeper and more sophisticated understanding of Euclidean geometry, and explore several alternative and augmented geometries that have been developed. More generally, the techniques developed in this course will aid you in critical thinking, problem solving, and technical communication, in addition to providing a familiar subject to learn modern mathematics.

Course Objectives:

Upon successful completion students will be able to:

- Write rigorous proofs of simple statements in geometry,
- describe the importance of axiomatic description in this major branch of math,
- state axioms and basic theorems of Euclidean and non-Euclidean geometries
- explain the importance of Euclid's 5th Postulate to non-Euclidean geometry, and
- describe spherical and hyperbolic geometries.

This supports the Student Learning Objects in the Math Major by enabling students to:

- comprehend, discover, and communicate common principles of geometry,
- recognize, understand, and also make his/her own mathematically rigorous arguments,
- interpret and present results to a technical audience, both in writing and verbally, and
- modify problems to make them tractable.

Opportunities for Mastery:

- Two tokens can be used to resubmit or do a late submission for two WrittenHW's.
- Discussion board responses improve WrittenHW averages.
- Lowest scoring ProjectHW is dropped when computing averages.

Expectations for the Instructor:

- Communicate with you through Canvas (discussion boards, announcements, posted grades), emails, and in-person during social hours & class.
- Provide a consistent course structure with regular feedback.
- Foster a space and environment for students to make mistakes & revise their thinking, get confused, speak, to be heard, and to grow as we learn about mathematics!

Expectations for the Student:

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

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).

Note that the the schedule for the next week is also posted and discussed at the start of each class.

Evaluation/Grading:

Specific weights are:

Participation	5%
WrittenHW	25%
Project HW	15%
Project Poster	15%
Exams (3)	40%

The conversion from course percentage (p) to grade (g) on a 4. scale is given graphically by: [GradeConvert.pdf](#)
(<https://uw.instructure.com/courses/1785124/files/128759712?wrap=1>)

or equivalently by the algebraic rule:
$$g(p) = \begin{cases} 4.0 & \text{if } 90 < p \\ .1x - 5 & \text{if } 57 \leq p \leq 90 \\ 0 & \text{if } p < 57 \end{cases}$$

Participation:

Posting attempts/work/answers for problems from activity sheets in the classroom or contributing to a discussion focused on textbook content counts towards your participation marks. Opportunities for these are given most class days. You need to collect 5 of these throughout the term to get 100% for participation. Note, your contributions do not need to be correct or complete! Generally we learn more from attempts and mistakes than from correct work so please contribute whatever math thoughts you have!!

Written Homework:

One homework assignment is due every week on Thursdays. Problems from each section covered in class are posted each day as well as on Canvas.

Handwritten assignments will be assigned to give you practice writing math before performing on the exams and are due on Thursdays. When writing your solutions, assume your audience is another mathematically curious student who has taken at least one 300 level course. It is preferred that assignments be turned in on paper but Canvas is an option. Note however, that assignments turned in through Canvas may not be marked as quickly. This policy is mostly the result of the difficulties I have marking assignments on Canvas

You are allowed and encouraged to work together on homework. In particular, the Canvas [WrittenHW Questions \(extra credit\) Discussion Board \(https://uw.instructure.com/courses/1785124/discussion_topics/9405722\)](https://uw.instructure.com/courses/1785124/discussion_topics/9405722) is a great place to connect with your peers about the WrittenHW and get some help. Notice that if you answer a question that is posted, you can earn an extra credit mark towards your overall WrittenHW average (up to 100% for the category).

Each student is expected to turn in their own work (although you are welcome to review and edit each others!). Your homework is expected to be written up neatly, clearly, and completely. Please make your final answer and its required supporting work, easy to find and identify. In order to maximize partial credit make sure your work is well supported, explained, and written.

WrittenHW submitted after the deadline but prior to instructor marking will be accepted with no penalty. Once marking has started no further submissions for the homework are accepted. Marking will usually occur Friday with marked assignments returned the following class day.


If you have to submit a WrittenHW through Canvas, the recommended procedure is:

- write your homework solutions on normal paper clearly, with supporting work, and so that they are easily identifiable!
- take a photo of your work with a digital camera
- convert the (possibly) multiple photos into one PDF with an application (such as "Evernote Scannable", "CamScanner", "Scannable" or another free application!)
- upload the one PDF file to Canvas.

Token: You have **1 token**.

- You may exchange one token for the opportunity to *rework and resubmit a written homework*. The new work will replace the original score only if the new score is higher.
- You may exchange one token to submit a late written homework without penalty.

Projects:

This project will have you working in 3D with some designing. One popular project is to create a physical product using a 3D printer. There are many options with the Library Makerspace (<https://www.tacoma.uw.edu/library/library-makerspace>  (<https://www.tacoma.uw.edu/library/library-makerspace>)). ProjectHW assignments will be regularly assigned and collected. The project will culminate in a class poster session March 13th. Details will be introduced in the assignments.

Exam Policy:

The dates of the exams are **Thursday Jan 20th, Thursday Mar 20th & Tuesday March 18th** (final). Exams are to be done individually within the assigned class time while proctored. Explicitly this means books, internet tools and collaboration are not allowed for these exams. Each exam is allowed a specified amount of notes.

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.

Communications/Netiquette:

This class is scheduled to be in-person but it is set up with some accommodations for folks who find that they cannot attend class. That means we have etiquette *and* netiquette guidelines!

Questions about the Class:

- When the instructor is not in the same room, if questions arise, please remember to check the following *before* emailing your instructor:
 1. Canvas Home page: this lists different resources available depending on the type of question
 2. Course Syllabus: introduces policies and expectations of the class organized by topic
 3. Modules: Identifies what work should be done before class & provides the activity for the day.
 4. Conversations in the appropriate Discussion Board: theme specific boards have been set up to help you find what you are looking for
- This policy will help you in potentially identifying answers before I can get back to you and it also helps me from answering similar questions or concerns multiple times. In fact, most emails sent to me will be posted on the FAQ: Technical or Course Related (with their answers) and then I'll direct you to look there for your answer.
- If your question is not related to the course material (content, deadlines, assignment requirements), but is of a personal nature (grade received, illness, missing your deadlines, struggles), please email me directly.

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.

Netiquette:

- Students are entitled to receive instruction free from interference by other members of the class. If a student is disruptive, an instructor may ask the student to stop the disruptive behavior and warn the student that such disruptive behavior can result in withdrawal from the course. The instructor may withdraw a student from a course when the student's behavior disrupts the educational process.
- Appropriate online behavior is defined by the instructor. Course discussion messages should remain focused on the assigned discussion topics. Students must maintain a cordial atmosphere and use tact/professionalism in expressing differences of opinion.
- Inappropriate discussion board messages may be deleted if the instructor feels it is necessary. Students will be notified privately that their posting was inappropriate.

Email Policy:

I will respond to emails just as soon as I am able but I would encourage you to first post your questions to the pinned discussion boards as often times a peer will be able to help quicker than I! The University email policy used during normal operations is posted at: (<https://www.tacoma.uw.edu/it/uw-tacoma-email-policy> ↗ (<https://www.tacoma.uw.edu/it/uw-tacoma-email-policy>))

Disclaimer:

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.

Academic Honesty:

Review Expectations, Policies, Consequences: (<https://www.tacoma.uw.edu/registrar/academic-policies> ↗ (<https://www.tacoma.uw.edu/registrar/academic-policies>.)

Getting Help: (<https://uw.instructure.com/courses/1785124/pages/getting-help-125>)