

MAT 515: Geometry for Teachers

Prof. Scott Sutherland Stony Brook, Fall 2020

General Information: This is a course covering the basics of planar Euclidean geometry, intended for future and practicing teachers. This is *not* a course in how to teach geometry; rather, it is to help you understand the subject and issues arising in teaching geometry well enough that you can teach the course. Of course, since everyone is a future or practicing teacher, pedagogical issues and how to present the material cannot (and will not) be ignored.

Contact Info: Math 5-112 / 631-632-7306 / scott.sutherland@stonybrook.edu for office hours, see www.math.stonybrook.edu/cards/sutherlandscott.html. Sometimes these change, so check first. Note that **office hours will be held only via zoom**. I should be online during the scheduled hours, but you can schedule an appointment any mutually convenient time. Doing so by email is probably most efficient.

Grader: Aleksandar Milivojevic. Note that Aleks holds **MLC hours** on Friday mornings.

Website: <http://www.math.stonybrook.edu/~scott/mat515.fall120> or through Blackboard. This website includes a **schedule** containing what we cover, links to readings and homework, as well as class notes. It will change at least once a week, often more.

Class Meets: MW 6:05–7:25 both in-person (Javits 101) and **via Zoom**. Recordings of previous classes are available on Blackboard.

Text: The textbook for the course is **Algebra and Geometry** by Hung-Hsi Wu. This expected to be published in late October or early November. In the meanwhile, I have been given permission by the author and publisher to distribute sections as needed, **but you are expected to buy the book** when it comes out. This is the second of a three volume set (the first is **Rational Numbers to Linear Equations**) which also includes fundamental notions on basic geometry, assumed by part 2. This book is also recommended.

Until the text is published, I will distribute pieces of it as we go, along with other material. These should not be circulated— they are only for your use.

Grading: Your course grade will be based on a combination of the following factors

- Participation and discussion (25%)
- Homework assignments (25%)
- Midterm (25%) — date TBA, probably late October; 6:05-7:25pm.
- Final Exam (25%) — Wednesday Dec. 9, 8:30-11:00pm.

Workload: One cannot learn mathematics without doing it mathematics; as **Euclid** reportedly told the ruler of Egypt **Ptolemy I**, “*There is no royal road to Geometry.*” Each week, you should expect to **devote a minimum of five hours** outside the classroom to this course. The amount of homework to submit each week will not be constant so it is strongly advised to plan ahead.

Collaboration: Students are encouraged to work together and use resources outside the classroom appropriately. But copying without attribution is plagiarism and will not be tolerated, and will be reported immediately to the Academic Judiciary.

Course Delivery: As noted above, the course will be taught simultaneously in-person and via Zoom. You can attend either way on any given day, as you prefer. However, unless special arrangements have been made **the midterm and final are expected to be done in person at the scheduled times.**

Americans with Disabilities Act: If you have a physical, psychological, medical or learning disability that may impact your course work, please contact the Student Accessibility Support Center, located at ECC (Educational Communications Center) Building, Room 128 (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity: Each student must pursue his or her academic goals honestly and be held personally accountable for all submitted work. Representing another person's work as your own is **always wrong**. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at: https://www.stonybrook.edu/commcms/academic_integrity/.

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

Course Evaluation: Each semester Stony Brook University asks students to provide feedback on their courses and instructors through an online course evaluation system. The course evaluation results are used by the individual faculty, department chairs and deans to help the faculty enhance their teaching skills and are used as part of the personnel decision for faculty promotion and tenure. No individually identifiable data are ever reported back to the university or instructor. Students who have completed previous evaluations can view all faculty ratings at: classie-evals.stonybrook.edu/.

IT Support: For suggestions about online learning, visit the Keep Learning website at: <https://sites.google.com/stonybrook.edu/keeplearning/>. Report any technical issues at <https://it.stonybrook.edu/services/itsm> or call 631-632-2358.