

Advanced Concepts of Mathematics (MATH 3452)

Meeting Times: 2:30-3:55 pm MWF in RBN 4019

Last day to withdraw: Monday, March 28, 2022

Instructor: Nathan Smith

Office: RBN 4007

Contact: nsmith@uttyler.edu

Office Hours: TBA

Text: None

Course Topics: Math History and applications to the classroom. Selections from ancient mathematics to the more modern in algebra and geometry.

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

1. Write complete, correct, and coherent proofs.
2. Demonstrate a deep understanding of mathematical reasoning and problem solving.
3. Use correct and precise mathematical language to describe important events in mathematical history.

Grading: There will be three tests, each of which will count one fifth of your final grade. There will be a final project consisting of a written paper and a poster presentation, which will count for one fifth of your final grade. The remaining fifth of your final grade will be based upon homework, participation, and in-class assignments. Earning 90% of all points guarantees a grade no lower than *A*, 80% of all points guarantees a grade no lower than *B*, and so forth.

In class work: All students should work on and complete the in-class assignments. We will be preparing a class set of approved solutions. Rotating through the class each student will be responsible for producing a correct, neat, well explained solution for the assignments, which will then be posted on the class web page for everyone's benefit. Much of your in-class grade will be based upon these write-ups.

Missed work: If an emergency situation or university-sanctioned event forces your absence on the day of a test and if you have discussed the situation in advance with the instructor we will work out a way to make up the test.

Student Academic Conduct: It is your responsibility to learn the material in this course for your own benefit. You should not let this discourage you from working together on your homework but in the end what you turn in should reflect your understanding, not just be copied from someone else. *During the tests a code of honor will apply under which students*

are to work alone and neither give help to others nor receive help from any sources. Students are also expected to help enforce this code. Students are encouraged to obtain a copy of *A Student Guide to Conduct and Discipline at UT Tyler*, available in the Office of Student Affairs.

We point out here, as well, that the written paper must be your own work. Copying things out of another book or from a website is not acceptable.