

**Topology MATH7500  
Syllabus**

Instructor: Dr. Michel Smith

Office: Parker Hall 310

Office hours: MWF 11:00 - 12:00 and by appointment.

Class Website: <http://webhome.auburn.edu/~smith01/math7500Fa23/>

I adhere to the idea that the concepts and techniques of mathematics are understood and retained much more firmly if students can discover their own solutions to problems. At the graduate level students should be able to discover or invent proofs to theorems and to construct abstract examples of the concepts presented in class. In this course the student will be presented with a set of theorems; they will be responsible for constructing proofs based on the axioms presented in class. In addition, exercises designed to help in the understanding of topological structures will be assigned. Individual students will be asked to present proofs and solutions to problems on the blackboard in class. It is the responsibility of the other members of the class to evaluate the proofs and problem solutions for correctness. I may also assign problem/exercise sets that will be collected for grades.

**Grade Calculation.**

Item	Percent of Grade
Participation grade (includes blackboard presentation, class contributions, homework).	20%
Projects	20%
Tests	30%
Final Exam	30%

The standard 10 percentage point scale will be used: 90 to 100 =A; 80 to <90 = B; 70 to < 80 =C; 60 to <70 = D; <60=F.

Reminder: If you are asked to present a theorem in class whose proof you have already seen from your readings or from another course, then I ask you to indicate this to me. Priority of presentations will be given to students who have not seen the proofs. I am aware that some students may have seen some of these theorems but may not remember the proofs; again, please let me know if this is the case - in some cases you will be permitted to present the proofs especially if you have essentially discovered your own proof.

I am not opposed to the discussions of material outside of class, but if you obtain a proof or solution from such discussions or if someone else has provided (perhaps inadvertently) a hint on a solution then that person (or those persons) should be referenced and given credit for the contribution. Collaborative solutions are permitted provided each individual's participation is clearly recognized, though priority of presentation may be given to individual solutions. I've

written an essay on my teaching style and posted it on the MATH 7500 class website:  
<https://www.auburn.edu/~smith01/math7500Fa23/MyModifiedSocraticMethod.pdf>

**Accommodations for Students with Disabilities:** Students who require such considerations should make an appointment with me during the first week of classes. Please bring your memo from the Program for Students with Disabilities (PSD). If you do not have a memo, it is recommended that you make an appointment with a member of the professional staff in the PSD office, 1244 Haley Center (844-2096).