Syllabus

Course: Mathematics 8061.001.
Course Title: Differential Geometry & Topology I.
Time: MW 9:00-10:20.
Place: Wachman Hall 617.
Instructor: Fu, Ser-Wei.
Instructor Office: Wachman Hall 1027.
Instructor Email: swfu@temple.edu
Instructor Office Phone: 215-204-7841.
Course Web Page: http://sites.temple.edu/swfu/teaching/
Office Hours: MW 10:30-11:50 or T 1:00-2:00 or by appointment.
Prerequisites: Math 5042.

Course Goals: Introduce topics in Differential Geometry and prepare graduate students for more advanced topics in graduate school.

Topics Covered: This course will be an introduction to the geometry and topology of smooth manifolds. We will begin the fall semester with the definitions: what does it mean for a space to (smoothly) look just like $\mathbb{R}^n$? We will go on to study vector fields, differential forms (a way to take derivatives and integrals on a manifold), and Riemannian metrics.

Course Grading: Homework and Presentation 70% Midterm 15% Final 15%.
Exam Dates: Midterm - Wednesday, October 7; Final - Friday, December 11.
Attendance Policy: Attendance is recommended.

Expectation: The students are expected to read the textbooks and actively ask questions either in class or during office hours. Students are expected to provide all references they used in their homework. This includes names of individuals they worked with and websites they searched.

Any student who has a need for accommodation based on the impact of a disability should contact me privately to discuss the specific situation as soon as possible. Contact Disability Resources and Services at (215) 204-1280, 100 Ritter Annex, to coordinate reasonable accommodations for students with documented disabilities. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The University has adopted a policy on
Student and Faculty Academic Rights and Responsibilities (Policy # 03.70.02) which can be accessed here.

Students will be charged for a course unless dropped by the Drop/Add deadline date.

Fall Begins: Monday August 24, 2015
Classes Begin: Monday August 24, 2015
Labor Day: Monday September 7, 2015
Course Add/Drop Deadline (tuition refund): Friday September 4, 2015
Course Withdraw Deadline (no refund): Tuesday October 20, 2015
Fall Break: Monday-Friday November 23 - November 27, 2015
Classes End: Monday December 7, 2015
Study Days: Tuesday-Wednesday December 8 - December 9, 2015
Exam Week: Thursday-Wednesday December 10 - December 16, 2015
Diploma Date: Thursday December 17, 2015

During the first two weeks of the fall or spring semester or summer sessions, students may withdraw from a course with no record of the class appearing on the transcript. In weeks three through nine of the fall or spring semester, or during weeks three and four of summer sessions, the student may withdraw with the advisor’s permission. The course will be recorded on the transcript with the instructor’s notation of ”W,” indicating that the student withdrew. After week nine of the fall or spring semester, or week four of summer sessions, students may not withdraw from courses. No student may withdraw from more than five courses during the duration of his/her studies to earn a bachelor’s degree. A student may not withdraw from the same course more than once. Students who miss the final exam and do not make alternative arrangements before the grades are turned in will be graded F.

The grade I (an ”incomplete”) is reserved for extreme circumstances. It is necessary to have completed almost all of the course with a passing average and to file an incomplete contract specifying what is left for you to do. To be eligible for an I grade you need a good reason and you should have missed not more than 25% of the first nine weeks of classes. If approved by the Mathematics Department chair and the CST Dean’s office, the incomplete contract must include a default grade that will be used in case the I grade is not resolved within 12 months.