STUDENT SYLLABUS   **Riemannian Geometry**   **MTG5932-01**
Spring 2016

WHERE COURSE MEETS: 107 Love Building

WHEN COURSE MEETS: MWF 9:05 - 9:55 AM

INSTRUCTOR: Dr. Eric P. Klassen (klassen@math.fsu.edu)

WEBSITE: http://www.math.fsu.edu/~klassen/

OFFICE: 114 Love Building

OFFICE HOURS: Mon/Weds 1-2 PM

PREREQUISITES:
Advanced Calculus, Linear Algebra, and some familiarity with differentiable manifolds.

Since this is a topics course, I'm not going be strict about enforcing these prerequisites. See me if you have questions.

TEXT: <u>An Introduction to Differentiable Manifolds and Riemannian Geometry</u>, Revised Second Edition, by William M. Boothby.

COURSE CONTENT: My main goal is to cover Chapters 7 and 8. However, I will start by reviewing some material from Chapters 3-6. Important topics include the Riemannian metric and connection, geodesics, the exponential map, the Riemann curvature tensor.

HOMEWORK: Boothby's book has many excellent exercises. I will periodically suggest some of these to further your understanding, but will not collect them. Every student is required to present the solution of at least one nontrivial HW problem to the class during the semester. I encourage you to make these presentations in groups of two or three students. These solutions should be clearly presented, and substantially correct. If they are not, I may ask you do to a make-up. I will reserve some time on Fridays for these presentations.

GRADING/ATTENDANCE:
I consider each student in this class to start out with an A! However, if you have 6-10 absences, this will lower your grade by one grade; 11-14 absences will lower it by two grades, etc. Furthermore, if you don't present a problem in class, this will lower it by one grade.

If your grade is adversely affected by absences which have a documented and excusable reason (for example your health, or travel which is required by your graduate advisor), then, if you show me adequate documentation, I will allow you to raise your grade by up to one grade point if you hand in a make-up project (which I will assign to you if the need arises).

EXAMS: There will be no exams.

HONOR CODE: The Academic Honor System of The Florida State University is based on the premise that each student has the responsibility 1) to uphold the highest standards of academic integrity in the student's own work, 2) to refuse to tolerate violations of academic integrity in the University community, and 3) to foster a high sense of integrity and social responsibility on the part of the University community. Please note that violations of this Academic Honor System will not be tolerated in this class. Specifically, incidents of plagiarism of any type or referring to any unauthorized material during examinations will be rigorously pursued by this instructor. Before submitting any work for this class, please read the "Academic Honor System" in its entirety (as found in the <u>FSU General Bulletin</u> and in the <u>FSU Student Handbook</u> and ask the instructor to clarify any of its expectations that you do no understand.

AMERICAN DISABILITIES ACT: Students with disabilities needing academic accommodations should: 1) register with and provide documentation to the Student Disability Resource Center (SDRC); 2) bring a letter to the instructor from SDRC indicating you need academic accommodations. This should be done within the first week of class.