MATH 864: Geometric Topology
Spring 2008 MWF 3:00 - 3:50 pm C208 Wells Hall

Instructor Information:

Lawrence Roberts
A345 Wells Hall
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Tentative Office Hours:

M 2-3
W 2-3
F 11-12

Books: The main textbook is *Differential Topology* by V. Guillemin and A. Pollack. The hope is that this book is easy to read, but we will need to add some topics to it. Suggestions related to your interests would be most welcome. Other worthwhile texts include

Topology from the differentiable viewpoint by J. Milnor
Morse Theory by J. Milnor (the first part)
Three Dimensional Geometry and Topology by W. Thurston
Any of the numerous books on differential manifolds entitled "Differentiable Manifolds ..." by Conlon, Boothby, Lee, etc.

Course Website: www.math.msu.edu/~lawrence/math864.html, or use the "course website" link on the math homepage: www.math.msu.edu

Material Covered: Differentiable manifolds, transversality, Morse theory, intersection theory. We will add to this list depending on the time and interest of the students. For example: foliations, integration on manifolds, cohomology, low dimensional manifolds, etc.

Grading: The prinicipal component in the grading will be a verifiable interest and effort in learning the material. Rather than have a final, there will be a project at the end of the class involving a short ($\leq$ 10 pages), expository paper on some topic related to the course material. I will give some topics, but feel free to pursue your own.

Homework: Homework will be assigned weekly on the website. Further information will be forthcoming in the lecture.

Important Dates:

January 7	Classes begin
January 21	Martin Luther King Day – NO CLASS!
February 1	End of tuition refund period
March 3- 7	Spring Break – NO CLASS!
April 25	Classes end
April 30	FINAL(?) 3-5 pm