

MA 490/MA 540 **Differential Geometry** Fall 2011

Instructor: Yorck Sommerhäuser

Office: ILB 423

Telephone: 414-8039

E-Mail: sommerh@jaguar1.usouthal.edu

Class meetings: Monday, Wednesday 14:30 pm–15:45 pm, ILB 345

Office hours: Monday, Wednesday, Friday 12:25 pm–13:25 pm

Textbook: W. Kühnel: *Differential Geometry: Curves—Surfaces—Manifolds*, 2nd ed., Stud. Math. Libr., Vol. 16, Am. Math. Soc., Providence, 2006, ISBN: 0-82183988-8.

Course description: We discuss the local and the global theory of curves and surfaces.

Objectives: In this course, the students learn about the basic properties of curves and surfaces, such as curvature, covariant derivatives, and the Theorema egregium.

Coverage: We cover Chapters 2, 3, and 4 of the textbook.

Attendance: Attendance is required.

Exams: There will be two midterm exams and a comprehensive final exam. Calculators and other electronic devices must not be used during the exam unless explicitly stated otherwise. The midterm exams take place on Wednesday, September 28 as well as Wednesday, October 26. The final exam takes place on Monday, December 12, 15:30 pm–17:30 pm.

Homework: On Wednesday, a weekly exercise sheet will be handed out, containing three or four problems. This has to be completed until the next Wednesday. While it is allowed to collaborate on the problems, every student is required to write up his solution in his own words.

Grading weights:

Homework:	30%
Midterm exams:	20% each
Final exam:	30%

Grading scale:

A:	90% – 100%
B:	80% – 89%
C:	70 % – 79%
D:	60% – 69%

Policies: Eating, drinking, and smoking is not permitted in the classroom. The use of electronic devices such as laptops, i-pods, cellphones, or calculators is not allowed unless explicitly stated by the professor. Cellphones may be brought to class, but must be completely off and stowed away. They must not be used during class at any time. In addition, the policies described in the student handbook 'The Lowdown' apply.

Disabled students: If you have a specific disability that qualifies you for academic accommodations, please notify me and provide certification from the Office for Special Student Services, which is located at 5828 Old Shell Rd. (Tel. 460-7212).