

## COURSE INFO: MATH 116, DIFFERENTIAL GEOMETRY

MOON DUCHIN, SPRING 2006

### 1. COURSE DESCRIPTION, PREREQUISITES

This course is called Elements of Differential Geometry (or in some places, Metric Differential Geometry) The two major concepts of the course are **curvature** and **geodesics**.

Texts: Andrew Pressley, *Elementary Differential Geometry* (required).  
Manfredo DoCarmo, *Differential Geometry of Curves and Surfaces* (recommended).

FORMAL PREREQUISITES: You must have completed 22A (Linear Algebra), 21D (Vector Analysis), or have obtained the consent of the instructor.

INFORMAL PREREQUISITES: solid background in multivariable calculus, especially parametrized curves and surfaces in  $\mathbb{R}^n$ . But we will review this.

### 2. NITTY GRITTY

There will be one in-class midterm and a final exam.

Homework	25%
Midterm	30%
Final Exam	45%

There may be a second midterm, in which case it will be take-home and I will adjust the above numbers.

Homework will be assigned every week and due on Mondays.

### 3. INSTRUCTOR INFORMATION

I am a Research Assistant Professor (postdoctoral scholar) here on a three-year appointment. My research is in geometric topology. My office is in MSB 2111, across from the undergraduate computer lab.

**Office Hours** : Mondays after class  
by appointment (gladly!)

#### 4. POLICY ON EXCEPTIONS

- Late homework will not be graded. You are welcome to hand it in to be looked over.
- There will be no make-up exams.
- Sufficiently significant and well-documented emergencies will be treated case-by-case.

#### 5. ACADEMIC HONESTY

You are not only allowed but encouraged to work together on homework. However, your submission must be your own writing (or typing) and you must indicate what help you received or what sources (e.g., websites, texts) you used on the assignment. Please err on the side of caution and cite all relevant sources and resources.

If a student is suspected to have cheated on an exam or assignment, it is departmental policy that I refer the case to the Office of Student Judicial Affairs, which has a range of penalties at its disposal.

You can see the code of academic conduct at <http://sja.ucdavis.edu/pdf/CAC.pdf>

#### 6. DROP DATE

The last day to drop the course without dean's permission or fee is the twentieth day of instruction, April 26.