

Math 553 Section 001, Differential Geometry
University of Wisconsin-Milwaukee

Spring 2020
Department of Mathematical Sciences

Instructor: Brendan Healy

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Office: E447 EMS

Office Hours: Monday and Wednesday, 9:30-11:00 am and by appointment

Course Meeting Times: MW: 11:00 am - 12:15 pm, EMS E423

Text: Elementary Differential Geometry (Springer Undergraduate Mathematics Series) 2nd ed., by A.N. Pressley

Prerequisites: Junior standing, grade of C or better in all of Math 233(P), 234(P) & 341(P); or grad standing (553G)

Material: This course serves as a first class in differential geometry with a focus on curves and surfaces in two and three dimensions.

Grades: Course grades will consist of 30 % homework, 20% each for two midterms, and 30% for the final.

- **Homework:** Homework problems will be assigned and collected regularly throughout the semester. The general rule will be that all homework assignments made during a given calendar week will be collected at the beginning of class on Wednesday of the following week. Late homework that is turned in by 5 p.m. the next day (Thursday) will be accepted but marked down 25%. Work turned in after that time, but before the assignment has been returned to the rest of the class, will be accepted but marked down 50%. The average of all homework scores will be worth 30% of the final course grade.
- **Midterm Exams:** Two 75 minute midterm exams will be given during the semester. The first will be on February 26th and the second on April 1st. Each midterm will account for 20% of the course grade.
- **Final Exam:** The final will be a two hour exam, with date and location TBA. This exam will be comprehensive, but will be weighted towards material covered after the second midterm. The final exam will account for 30% of the course grade.

Attendance: Attendance in this class is considered mandatory. If you miss class, it is *your responsibility* to identify and make up any material you may have missed. Missed exams will not be available for retake except in cases of religious observance, military service, or documented medical emergency. Students who do not attend class in the first week or contact the instructor during the first week of classes may be administratively dropped from the course.

Important Dates:

- Tuesday, January 21 First day of classes
- Monday, January 27 MathSci Department's last day to add a class
- Monday, February 3 University last day to add, last day to change to/from cr/no cr/audit status
- Monday, February 17 Last day to drop without a "W" (Withdrawn) on record
- Sunday, April 5 Last day to drop
- March 15-22 Spring Recess
- Thursday, May 7 Last day of classes
- Friday, May 8 Study day
- May 9 and 11-16 Final examination period

Reading the Text: As with any course, it is important to read the text. In order to maximize the benefits of time spent in the classroom, it is crucial that students read ahead to prepare for material that will be covered in class.

Average Time Investment: The amount of time that an average student should expect to spend on this class is as follows:

- Classroom time (face to face instruction): 42 hours
- Time taking exams (midterm, final exam): 5 hours
- Time for preparation and study for exams: 20 hours
- Time completing reading and other homework assignments: 100 hours
- Total number of hours: 167

Other Important Points:

- The communication of mathematics is one of the primary goals of this class. For this reason, it is not only the written mathematics that carries a grade, but also its presentation and the constructive critique of other work in class.
- Students with disabilities or who have an Eligibility Letter/Student Accommodation Plan should contact me early in the semester to discuss the assistance they may need.
- Missed material will be allowed to be made up in the case of religious observance.
- Room changes and cancellations are valid only if posted outside the classroom door on Math Department letterhead and sent via email.
- Cell phone use is prohibited during class.
- Students attempting to repeat a Mathematical Sciences course for the second time (third taking) will need permission of the student's academic deans' office.
- Other important university policies can be found here:
<http://uwm.edu/secu/wp-content/uploads/sites/122/2016/12/Syllabus-Links.pdf>