Math 40760: Differential Geometry, Fall 2017

Instructor: Prof. Andrew Putman
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Webpage: http://www.nd.edu/~andyp/teaching/2017FallMath40760/
Class Hours: MWF 12:50-1:40
Classroom: Hayes-Healy 125
Office Hours: Tu 10:30-12:30, also by appointment (or just stop by if my door is open!)

Topics: We will cover the local and global geometry of curves and surfaces in $\mathbb{R}^3$.

Primary Text: *Differential Geometry of Curves and Surfaces* (2nd edition) by Banchoff–Lovett.

Alternate Texts: Some other good textbooks that cover similar material are
1. *Differential Geometry of Curves and Surfaces* by do Carmo
2. *Differential Geometry: a First Course in Curves and Surfaces* by Shifrin, available for free at
   http://alpha.math.uga.edu/~shifrin/ShifrinDiffGeo.pdf

Homework: Homework will be assigned every Friday and will be due the following Friday by 5pm in my office (slide it under my door if I am not there). It will be posted to the course webpage by Friday evening. Collaboration is encouraged, but each student must independently write up his/her own solutions. Late homework is never accepted, but the lowest homework grade is dropped.

Homework Grading: A few randomly chosen problems will be carefully graded each week (the number will depend on the enrollment for the course). The rest of your grade will be based on completeness (i.e. having a credible looking answer to each problem).

Exams: There will be one midterm exam and one final exam. The date of the midterm will be announced the second week of classes.

Grading:
25% Homework
35% Midterm
40% Final