



SYLLABUS

Spring 2020

Department of Mathematical Sciences

Differential Topology (Math 740)

Instructor: Sean Lawton
Office: Exploratory Hall 4413
Office Hours: TuTh 2-3pm
Phone: 703 - 993 - 4269
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Lectures: 3pm - 4:15 pm TuTh, Exploratory Hall 4106

Recommended Texts: *Introduction to differential topology*, Th. Bröcker, K. Jänich, Cambridge Press
Topology and Geometry, G. Bredon, Springer, GTM 139

Course Description: The official catalog description is this: “Differential forms, manifolds, smooth maps, vector fields, the Euler characteristic, integration on manifolds, and de Rham cohomology.” We will certainly cover at least most of these topics, and probably much more. In particular, we will be covering vector bundles, and maybe some Morse Theory.

Recommended Prerequisites: Graduate Topology (Math 631) and Graduate Analysis (Math 675).

Assessment: There will be regularly assigned HW, student presentations, and in-class group work. Your final grade will be determined by qualitative assessment of your performance in these activities.

Electronic Devices (such as laptops, cell phones, etc.): Please be respectful of your peers and your instructor and do not engage in activities that are unrelated to class. Such disruptions show a lack of professionalism and may result *penalties*.

Disability statement: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474, <http://ods.gmu.edu>. All academic accommodations must be arranged through that office.

University Honor Code: You are expected to follow the GMU Honor Code: <https://oai.gmu.edu/mason-honor-code/>

Diversity: You are expected to behave in accordance of the GMU Diversity Statement: <http://ctfe.gmu.edu/professional-development/mason-diversity-statement/>

Privacy: Students must use their MasonLive email account to receive important University information, including messages related to this class. See <http://masonlive.gmu.edu> for more information.