MA562 (Introduction to Differential Geometry and Topology) Syllabus

Fall 2020   MWF 12:30 – 1:20 PM   Online
Professor Donnelly   hgd@purdue.edu   494-1944

Pre–requisit: Linear algebra, calculus in several variables, basics of general topology

Course description:

Review of analysis in several variables and mappings, Differentiable manifolds and submanifolds, vector fields on a manifold, tensors, and tensor fields on manifolds, integration on manifolds, Riemannian manifolds and curvature.

Texbook: Boothby, William, Introduction to Differentiable Manifolds and Riemannian Geometry, Revised second edition, 2003, Chapters 1–8.

Homework: Assigned weekly – Graded and returned on weekly cycle – Exchanged online

No exams: Final grade based on cumulative homework grades.

Students who get at least 97% of the total points in this course are guaranteed an A+, 93% guarantees an A, 90% an A-, 87% a B+, 83%a B, 80% a B-, 77% a C+, 73% a C, 70% a C-, 67% a D+, 63% a D, 60% a D-; for each of these grades, it is possible that at the end of the semester, a somewhat lower percentage will be enough to get that grade.

Purdue University strives to make learning experiences accessible to all participants. If you anticipate or experience physical or academic barriers based on disability, you are encouraged to contact Disability Resource Center at drc@purdue.edu or by phone: 765-494-1247.

In this mathematics course accommodations are managed between the instructor, the student and the DRC Testing Center.

If you have been certified by the Disability Resource Center (DRC) as eligible for accommodations, you should contact your instructor to discuss your accommodations as soon as possible. Here are instructions for sending your Course Accessibility Letter to your instructor:

https://www.purdue.edu/drc/students/course-accessibility-letter.php