

PMATH 465/665, Geometry of Manifolds, Fall 2017

Time and Location: MWF 3:30–4:20 pm, PHY 150

Professor: Doug Park

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Office hours: To be announced at LEARN

Audience: This is intended to serve as a second course in differential geometry, aimed at a beginning graduate or a senior-level undergraduate student. Some familiarity with point-set topology, linear algebra, and multi-variable calculus will be assumed.

Textbook: “Differential Geometry and Topology, With a View to Dynamical Systems”, Keith Burns and Marian Gidea, Chapman & Hall/CRC, 2005. This textbook will be on reserve at the Davis Centre Library (QA641.B826 2005).

Material to be covered: We will attempt to cover most of Chapters 1–6 of the textbook.

Homework: Homework problems will be posted on LEARN. Homework should be handed in by the due date at the start of class. Late homeworks will **not** be accepted. You are required to cite the sources if you have received help from any material (both paper and digital format).

Presentations: Graduate students will be asked to present informal talks in the second half of the term. Topics for the talks should be prearranged with the professor. Undergraduate students are expected to attend these talks. To accommodate everyone’s schedule, we may have to schedule some extra meetings in December.

Tentative grading scheme: Homework 50%, Midterm exam 20%, Final exam and/or presentation 30%. Exam times and locations will be posted on LEARN. Because of the high weight of homework, you are **not** allowed to collaborate on homework in this course. In case of multiple violations of the last rule, we may be forced to use the following alternative scheme: Homework 20%, Midterm exam 40%, Final exam and/or presentation 40%.

Academic integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

[Check www.uwaterloo.ca/academicintegrity/ for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>. When in doubt please be certain to contact the department/school's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing academic offenses and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the undergraduate associate dean. For information on categories of offenses and types of penalties, students should refer to Policy 71, Student Discipline,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>.

For typical penalties check Guidelines for the Assessment of Penalties,

<http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm>.

Appeals: A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>.

Note for students with disabilities: AccessAbility Services, located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.