

PHYSICS 275: Planets
(Monday, Wednesday. 6:30 - 7:50 in PHYS145)

Instructor: Mike Fich

email: fich@uwaterloo.ca (*please include “PHY275” on subject line on ALL emails*)

Office: 255 Physics (ext 32725)

Office Hours: Tues. 2:00 - 4:00pm (*or by appointment at other times – not on Fridays*)

Textbook: Planetary Sciences Updated 2nd Edition (preferred) OR Fundamental Planetary Science (both by de Pater and Lissauer). The first book is a graduate level text, but is the most up-to-date text on the market. The other covers the same material, at an undergraduate level, and but unfortunately is several years out of date.

Teaching Assistants: Student Last Names beginning with A to L: Britt Jeter (Office Hours Tues 2 – 3 pm, bjeter@uwaterloo.ca,) and M to Z: Kristi Webb (Office Hours Mon 1 – 2 pm, ka2webb@uwaterloo.ca) [TA’s office’s are in PHYS 203A/207/208]

Grading: Assignments = 30%, Midterm = 30%, Final Exam = 40%
OR: Assignments = 15%, Midterm = 15%, Final Exam = 70%
(*whichever gives the better grade*)

MIDTERM EXAM: 25 October in class

Course Outline (# lectures is approximate)

1. Introduction to planetary science (2 lectures)
2. The physics of planetary science (5 lectures)
3. The structures of planets (6 lectures)
4. Small objects in the Solar System (4 lectures)
5. Extrasolar planets (2 lectures)
6. The formation of planets (1 lecture)
7. Life in the Universe (1 lecture)

Homework Assignments: There will be 5 homework assignments in the course.
(Tentative) Due Dates: Sept 20, Oct 4, Oct 18, Nov 8, Nov 29

There will be a few films shown in this course. **Material presented in films is part of the course and there WILL be questions asked in the midterm and final exams on this material.**

ACADEMIC INTEGRITY:

Collaboration: Students should be aware that there are limits to the amount that they may collaborate with other students. All of the assignments in this class are for individual work – none allow team work. This means, at the very least, that written solutions and answers should not be shared between students. Directly copying anything from another student is considered an offense. Talking to each other about approaches to solve the given problems is allowable.

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. The [Office of Academic Integrity](#) provides relevant information for students, faculty and staff. Students are expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for their actions. Completion of the [Orientation to Academic Integrity Tutorial](#) is encouraged and familiarity with [Policy #71](#), (Student Discipline) is expected. Students who are unsure whether an action constitutes an offence, or need help in learning how to avoid offences (e.g., plagiarism, cheating) or understand 'rules' for group work/collaboration should seek guidance from their course instructor, academic advisor, or the Associate Dean of Science for Undergraduate Studies. For information on typical Policy 71 penalties, students should check [Guidelines for the Assessment of Penalties](#).

The educational materials developed for this course, including, but not limited to, lecture notes and slides, handout materials, examinations and assignments, and any materials posted to Learn, are the intellectual property of the course instructor. These materials have been developed for student use only and they are not intended for wider dissemination and/or communication outside of a given course. Posting or providing unauthorized audio, video, or textual material of lecture content to third-party websites violates an instructor's intellectual property rights, and the Canadian Copyright Act. Recording lectures in any way is prohibited in this course unless specific permission has been granted by the instructor. Failure to follow these instructions may be in contravention of Policy 71 (Student Discipline). Participation in this course constitutes an agreement by all parties to abide by relevant University policies and guidelines – see [Faculty, Staff and Students Entering Relationships with External Organizations Offering Access to Course Materials](#).

STUDENT GRIEVANCES AND APPEALS:

Grievances: *Students, who believe that a decision affecting some aspect of their university life has been unfair or unreasonable, may have grounds for initiating a grievance. Students should read [Policy #70](#), Student Petitions and Grievances, Section 4. When in doubt, students must contact the departmental/school administrative assistant who will provide further assistance.*

Appeals: *A decision or penalty imposed under Policy 33 (Ethical Behavior), Policy #71 (Student Discipline) or grievances under Policy #70 (Student Petitions and Grievances) may be appealed, if there is a ground. Petitions may not be appealed. Students who believe they have a ground for an appeal should refer to [Policy #72](#) (Student Appeals).*