G456U / G556 Astrogeology

Spring 2012
CRN 61362 (456 lecture)/CRN 61361 (456 lab)
CRN 61377 (556 lecture)/CRN 61378 (556 lab)

Location: Portland State University
Lecture NH 11, 10:15-11:20 am MW
Lab CH 1, 10:15-12:05 am F

Instructor: Dr. Alex Ruzicka
CH 17K, 503-725-3372
e-mail: ruzickaa@pdx.edu
Office Hours: Regularly scheduled office hours are from 11:00-12:00 on Tuesdays and 11:30-12:30 on Wednesdays. Please make arrangements with me if you would like to meet outside of this time.

Class website: http://web.pdx.edu/~ruzickaa/G456

Course Description: Geology and astronomy are combined to better understand the evolution of the solar system. Comparative geologic evolution of the planets, moons, and smaller bodies in the solar system is emphasized. Other topics include impact cratering as a geologic process, the formation of stars and planetary systems, the origin of the solar system, and meteorites. The laboratory component of the course will give students experience with making observations and measurements that illustrate concepts discussed in lecture.

Text: ***Exploring the Planets*** by Eric Christiansen and W. Kenneth Hamblin, Wadsworth Publishing, Second Edition.

Exams: There will be two mid-term exams and a Final. These exams will be multiple choice. In general, no make-up exams will be given except for a medical emergency or unless arrangements to take the test at another time are made with the instructor in advance. On exam days, students should bring scantron forms (buy four copies of Form 882-ES) and a number two pencil to class. Scantrons are available at the bookstore. The **Final** (held in the main classroom on Wednesday June 13, 10:15 am-12:05 pm) will be comprehensive and is mandatory. Questions from the mid-term exams may be re-used on the Final. Answers and score distributions for the mid-term exams will be posted on the class website.

Laboratory assignments: Students will work on laboratory assignments during the scheduled laboratory period and will have one week to complete the assignment. Group work on laboratory assignments is permitted, but each student is required to submit their own work. Students should obtain a copy of the MER2003 CD-ROM which should be available from the instructor no later than the second week of classes. We will be doing some laboratory exercises from this CD. Payment for this CD is covered by the activity fee you paid for the lab.

Homework problems (G556 only): Students enrolled for graduate credit are required to complete some homework problems. Homework assignments and due dates will be posted on the class website.

Other policies: PSU students requesting accommodations must provide documentation of disability and work with the Disability Resource Center (DRC) office (503-725-4150). It is the responsibility of the student to arrange makeup tests at the DRC or SHAC testing center (503-725-5301) and to work with the instructor so that mutually acceptable times can be arranged. Each student is responsible for all of the content of all of the classes, including lecture material

which may not be in the text. If you miss lecture, it is your responsibility to learn the material covered.

Grades: Grading is done on a straight scale although curves will be used at my discretion. Grades will be assigned based on scores as follows: 95% or above = A, 90-94.99% = A-, 87-89.99% = B+, 83-86.99% = B, 80-82.99% = B-, 77-79.99% = C+, 73-76.99% = C, 70-72.99% = C-, 67-69.99% = D+, 63-66.99% = D, 60-62.99% = D-, less than 60% = F. I generally do not give "I" grades. This class can be taken Pass/No Pass. If you elect to change your grading option, please inform me in writing. Letter grades will correspond to the standards given in the PSU course catalog.

Grades for G456 will be determined from performances on:

Laboratory exercises..... 30%
Mid-terms 30%
Final Exam 40%

Grades for G556 will be determined from performances on:

Laboratory exercises 30%
Mid-terms 20%
Final Exam 30%
Homework problems 20%

COURSE OUTLINE

	Monday CH S17	**Wednesday CH S17**	**Friday CH 1**
Week 1	4/2 Survey (Ch. 1)	4/4 Our solar system (Ch. 1)	4/6 Endogenic & exogenic processes overview (Ch. 1); Collisions & impacts (Ch. 4)
Week 2	4/9 Planetary interiors (Ch. 2)	4/11 Ways to learn about planetary interiors (Ch. 2)	4/13 Collisions lab
Week 3	4/16 Moon (Ch. 4)	4/18 Mercury (Ch. 5)	4/20 Lunar stratigraphy I & II labs
Week 4	4/23 Mars (Ch. 6)	4/25 Mars (Ch. 6)	4/27 Mars I lab
Week 5	4/30 Mars (Ch. 6)	5/2 **Exam 1**	5/4 Mars II lab
Week 6	5/7 Venus & Earth (Ch. 7 & 8)	5/9 Venus & Earth (Ch. 7 & 8)	5/11 Io lab
Week 7	5/14 Jovian Planets (planets-- Ch. 9, 10, 11, 12)	5/16 Galilean moons (Ch. 9)	5/18 Galilean satellites lab
Week 8	5/21 Galilean moons (Ch. 9)	5/23 Titan (Ch. 10)	5/25 Triton/Pluto/KBOs (Ch. 12, 13)
Week 9	5/28 Memorial Day Holiday, NO CLASS	5/30 Mid-sized and small moons (moons--Ch. 9, 10, 11, 12)	6/1 **Exam 2**
Week 10	6/4 Interplanetary worldlets (asteroids & comets) (Ch. 3)	6/6 Meteorites (Ch. 3)	6/8 Formation of planetary systems (Ch. 2)
Finals		6/13 **Final Exam**, 10:15-12:05	

ACKNOWLEDGMENT OF SYLLABUS RECEIPT:
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Astrogeology G456U/ 556
Spring 2012 PSU

I have received a copy of the course syllabus for this class, and the instructor has discussed the contents of this syllabus.

NAME (please print) _____
Last First MI

Signature _____ Date_____

A phone number where you can be reached: _____

e-mail address:_____

Have you had any previous Geology classes. If so, what and where?

What field are you majoring (planning to major, have you majored) in?

Why did you choose to take this particular class?