

PTYS 395B
Exploring the Moon
Syllabus – Fall 2008

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Topic and aims of the course

It has been over 35 years since the last astronauts walked on the Moon. During that time, exhaustive analysis of the returned samples and further observations by space missions have yielded a wealth of information, yet many open questions remain. Now a new wave of lunar exploration is poised to commence that will investigate these unsolved problems and likely uncover more mysteries.

We will soon be in the midst of a flood of new lunar data. To put these new observations in context this colloquium will review what we know about the Moon and the manned and unmanned missions that have brought us to this point. All aspects of the Moon's geology and geophysics are open for discussion.

Despite its proximity, many basic questions about the nature, origin and history of the Moon remain. We will discuss the upcoming missions and how the datasets they will generate can be used answer some of these questions.

What students should know coming into this course:

Students will be expected to read research articles and make presentations on these papers to the class. Extensive discussion and class participation is expected of all members.

There are no explicit course prerequisites and anyone may enroll; however, this course is intended for juniors and above. Some of the reading may be technical and some background knowledge of terrestrial geology would be of great benefit. Students are welcome to attempt the course without a planetary-science or geological background, although extra effort is likely to be required on their part. Please speak to the instructor if you have any questions.

Course Website:

All class material and general information on the course will be posted on a class website at:

http://www.lpl.arizona.edu/~shane/PTYS_395_MOON

Textbooks:

There are no required textbooks in this class. Assigned reading will be provided by the instructor in hardcopy or electronic form.

Times and locations:

- One Session per week on Thursday from 2pm to 3:00pm.
- First lecture on Thursday, August 28th.
- Lectures will be held in room 308 of the Kuiper Space Sciences building (although we will try to use the smaller room 309 whenever it is available).

Professor Byrne will be available for questions and discussion, from the end of each lecture until 5pm. If you need help and cannot make these times then please contact him by email to make another arrangement.

Course credit and workload:

This is a colloquium, so class members are expected to participate in the discussions. Being able to participate in the discussions will require the student to have done the reading in advance. We will have one session per week, with a likely reading load of 1-2 papers (or book chapters) for each session.

Each student will also be asked to lead some of the discussions during the semester. This will involve putting together a short presentation on that week's reading. Students will need to understand the material in 'their' week well enough to field any questions from the class, the instructor can help the student prepare if they need help with background knowledge.

Grading policy:

Final results will be letter grades and determined from:

Attendance and class participation	75%
Student's own presentation	25%

Grades will be assigned according to the following scale.

90-100%	A
75-89%	B
60-74%	C
50-59%	D
0-49%	E

Grades will not be rescaled to ensure that any particular statistical distribution is met.