



## Procedures for the Ph.D.

### Courses

To earn a Ph.D. in the Department of Planetary Sciences, students must complete 66 units of academic credit:

21	units of core courses	
9	units of minor courses (for a PTYS minor; other minors may have higher unit requirements that students must fulfill; minor units may NOT be applied toward any other degree requirement)	These 30 units <i>must</i> be completed before the Oral Comprehensive Examination.
3	units of elective coursework (graded ABCDE) numbered PTYS 500 or above	Students may enroll in elective units as early as the first semester and may continue taking elective courses after passing the Oral Comprehensive Examination.
15	additional units of elective courses numbered PTYS 500 and above (including research, field trips, and ABCDE graded courses) as approved by advisor	
18	Units of dissertation credit (920 units)	Students may not enroll in 920 units until after passing the Oral Comprehensive Examination.
66		

The unit requirement and the fact that core courses are offered every two years implies that students must take each core course when it is offered in their first two years of study in order to remain in good academic standing. Most students will take 9 units per semester during their first four semesters. Courses of study are tailored to individual student needs and goals; an example is presented below.

### Sample Course Schedule

	Fall	Spring
First Year	PTYS505A	PTYS505B
	Minor	PTYS512
	Elective	Minor
Second Year	PTYS510A	PTYS510B
	PTYS517	PTYS554
	Minor	Elective

## Graduate Student Colloquia

Students are required to present three Graduate Student Colloquia. This is usually done in the second, third, and fourth semesters after admission to the Ph.D. program. Exceptions must be agreed to by the Graduate Admissions and Advising Committee (GAAC). At least one presentation should be on an article in a peer-reviewed journal and at least one presentation on the student's research.

Audience evaluations of the presentation will be relayed to the student by the faculty chair of the Graduate Student Colloquium. The faculty member will notify the Academic Office when each presentation has been completed. No further action by the student is required.

## Minor Program of Study

The [Minor Program Approval](#) form must be filed with the Department of Planetary Sciences Academic Office by the end of the second semester. The minor requirements must be completed before the Oral Preliminary Exam.

## Doctoral Plan of Study

[The Doctoral Plan of Study](#) must be filed with the Academic Office by the third semester from entry into the program.

## Written Comprehensive Examination

The Department of Planetary Sciences does not administer a separate written comprehensive examination. Passing grades in the final exams of PTYS core courses satisfy the Graduate College requirement for a written comprehensive exam.

## Oral Comprehensive Examination

- Students must take the Oral Comprehensive Examination within 3 years of enrollment in the program.
- Students must complete all PTYS core courses and minor requirements before applying to take the Oral Comprehensive Examination.
- The [Minor Program Approval](#) form must be completed before application to take the Oral Comprehensive Examination.
- The Graduate Student Colloquium presentations must be completed before the student takes the Oral Comprehensive Examination.

The student must complete the top half of the [Results of Oral Comprehensive Examination for Doctoral Candidacy Form](#) and submit to the Academic Office **at least 3 weeks prior to the exam date**. The Academic Office will assemble the exam packet and deliver it to the Dissertation Advisor before the exam. Subsequent to the exam, the form, signed by the committee members and indicating the outcome of the exam, must be returned to the Academic Office, which will obtain the signature of the PTYS/LPL Assistant Department Head and transmit the forms, ballots, and result to the Graduate College. **At least 3 weeks prior to the oral examination**, the student must supply the following to their Preliminary Examination Committee:

1. A copy of the [Results of Oral Comprehensive Examination for Doctoral Candidacy](#) form.
2. A written proposal outlining the primary proposed dissertation research.
3. A second written proposal presenting an alternate dissertation project.

Both proposals should include:

- a clear statement of the problems to be investigated
- a description of the proposed research objectives
- a description of prior results
- a description of the suitability of the methods proposed for carrying out the proposed investigation, and the significance of the proposed work as it relates to broader issues in planetary science.

It is essential that both proposals present a clear work plan as to how the project will be implemented. In addition, the proposals should include a description of the appropriate skills and techniques necessary for project success as well as how they will be developed or acquired by the student.

The proposal for the primary research project should be 2 to 3 single-spaced pages in length plus supporting figures, tables, and references. The proposal outlining the alternate thesis project should be 1 to 2 single-spaced pages, plus figures, tables, and references. Font size should be no larger than 12 pt and no smaller than 10 pt, in Times New Roman or similar. Margin sizes should not exceed 1" on all sides. The entire package must be submitted to the exam committee no later than three weeks prior to the scheduled exam date.

The oral exam is closed to the public and generally begins with a presentation of the primary research proposal that typically lasts 30 to 45 minutes. The student may be asked to present the second proposal at the discretion of the committee. Following this the examination is open to questions by the committee. The purpose of the exam is both to test the student's breadth and depth of knowledge of planetary science as well as to determine the ability of the student to pursue independent research leading to a Ph.D.

## **Advancement to Candidacy**

When the student has an approved [Doctoral Plan of Study](#) on file, has satisfied all course work, and has passed the Oral Comprehensive Examination, he or she must file the [Advancement to Candidacy \(Committee Appointment\) Form](#) with the PTYS/LPL Academic Office no later than six months before the Final Oral Defense Examination is scheduled. Upon completion of the Oral Comprehensive Examination, the student should begin signing up for PTYS 920 Dissertation units in order to satisfy the requirement of eighteen (18) PTYS 920 units before the Final Oral Defense Examination.

## **Dissertation Progress Reports**

Students are required to file [Dissertation Progress Reports](#) with the Academic Office annually for 3 years after successful completion of their Oral Comprehensive Exam and every 6 months thereafter. Reports are due by the anniversary date of the Oral Comprehensive Exam and (when required) on the anniversary date plus 6 months.

## **Academic Standing**

Ph.D. students are expected to satisfy [Graduate College rules on academic standing](#) and [academic progress](#) with respect to course work. In addition, good academic standing in the Department of Planetary Sciences doctoral program requires that the Dissertation Progress Report indicate satisfactory progress toward completing the dissertation. A student's failure to meet with their committee within the required time frame is equivalent to an unsatisfactory progress report. In the event that the Dissertation

Committee determines that satisfactory progress is not being made, the student is deemed to be on [academic probation](#). In this case, a second Dissertation Progress Report must be delivered within 6 months of the unsatisfactory report. If this second report is satisfactory, the student is once again considered to be making academic progress. However, if the Dissertation Committee reports unsatisfactory progress after this second Dissertation Progress Report, the student's participation in the doctoral program is terminated and the student reverts to non-degree status in the Graduate College. In this case, the student retains the option of applying to the department's M.S. program and completing a M.S. degree.

In the event of an unsatisfactory progress report, the Dissertation Committee chairman will deliver a letter to the student explaining the reason for the unsatisfactory report within 2 weeks of the Dissertation Progress meeting. The letter must also indicate how the student can return to satisfactory standing and the date by which these actions must occur. Copies of this letter must be filed with the Graduate College, the chairman of the GAAC, the department head and assistant department head. The student may appeal the Dissertation Committee's decision to the GAAC after receiving this letter, and the case will be reviewed by the GAAC.

## Final Oral Defense Examination

- All other [Ph.D. Degree Requirements](#) must be completed prior to scheduling the Final Oral Defense Examination.
- Students must defend their dissertation within 5 years of passing the Oral Comprehensive Examination.
- Copies of the dissertation must be distributed to the Dissertation Committee 4 weeks prior to the Final Oral Defense Examination. At this time the dissertation must be complete, containing all figures and references in addition to the text.
- Students must file the [Announcement of Final Oral Examination](#) with the Academic Office 2 weeks prior to the Final Oral Defense Examination. This form must include the signatures of all members of the Dissertation Committee.
- Upon successful completion of the examination, the student must obtain original signatures of all committee members on signature page provided by the Graduate College (this signature page becomes page two of the student's dissertation; see sample here: <http://grad.arizona.edu/academics/degree-certification/diss-theses/samples-templates>).
- Upon completion of the examination and satisfaction of all requirements, the committee chair will file the appropriate completion forms with the Academic Office and Graduate College.
- Upon successful completion of the Final Oral Defense Examination, the candidate submits the dissertation electronically for forwarding to the Library of The University of Arizona and to University Microfilms, Inc (UMI). A [processing and microfilming fee](#) also must be paid to the University Bursar. The student must submit two print copies of the dissertation to the PTYS/LPL library. Upon receipt of the finalized dissertation, the Dean of the Graduate College will recommend conferral of the doctoral degree by the Arizona Board of Regents.

**Approved by the PTYS/LPL Faculty on April 25, 2008.**