



Master of Science (M.S.) Degree Requirements

Although the Department of Planetary Sciences does not admit students directly into a Master of Science (M.S.) program, students may still earn a M.S. degree in Planetary Sciences. There are two options available: (1) a “terminal” M.S. degree intended for students who either decide not to pursue the Ph.D., or who do not pass Ph.D. candidacy exam, and (2) a M.S. degree “en route” to earning the Ph.D. In the case of the former, in addition to other requirements, the student is required to write and defend a M.S. thesis. For students who have passed the Ph.D. candidacy exam and have met the M.S. course requirements, a M.S. thesis is not required. Listed below are specific requirements for each option.

Option 1: The Terminal M.S. degree

Entering the M.S. Program. To enter the M.S. program, the student (who had already been enrolled in the Ph.D. program) must petition the Graduate Admissions and Advising Committee (GAAC) and the LPL director to initiate an M.S. degree program. With the approval of both the GAAC and the LPL director, the student is eligible to work toward the M.S. degree. At this time, the student must identify an M.S. thesis advisor and an M.S. committee and file a [Master’s Plan of Study](#) (GradPath).

Program of Study. The program of study must be approved by the student’s M.S. committee and must conform to Department of Planetary Sciences (PTYS) and University of Arizona Graduate College rules as described below. Students are guided through their program of study by their thesis advisor, who chairs their M.S. Committee. In addition, the GAAC is available to assist students at any stage in their graduate career.

M.S. Committee. The M.S. committee consists of three or more members, and is chaired by the student’s M.S. thesis advisor. Other members of the committee can be from the PTYS/LPL faculty, other University of Arizona departments, or scientists from outside institutions, if approved by the GAAC and the University of Arizona Graduate College as a special member. The student and their academic advisor recommend members of the M.S. committee. These recommendations are reviewed by the GAAC and must be approved by the PTYS department head.

Time Limits. The terminal M.S. must be completed within 5 years of enrollment in the PTYS graduate program, unless an exception is granted by the GAAC and the Graduate College.

Coursework. UA credit requirements for the Master’s degree are available from the [Graduate College](#). Program requirements are as follows:

- A minimum of 30 hours of graduate credit hours with a GPA of 3.0 or higher.
 - The 30 credit hours must include two to four units of PTYS 910 thesis credit *and* at least 15 credit hours in PTYS courses.
 - The 15 PTYS credit hours must include one each from of the following groups
 - PTYS505A, PTYS505B, PTYS517, PTYS553
 - PTYS510A, PTYS510B
 - PTYS512, PTYS554

- Students must maintain a GPA of 3.0 or better in the PTYS courses to be considered in good academic standing. Failure to maintain this standing results in dismissal from the M.S. program.

M.S. Thesis

- Thesis must describe results from an original investigation. The results must be of high enough quality to merit publication in the peer-reviewed literature.
- Reprints (copies of either published papers or manuscripts submitted for publication) may be included as appendices in theses or dissertations, with the permission of the student's committee. Because the thesis or dissertation must represent an integrated body of original scholarly work, the portions of the reprint that are relevant must be summarized within the body of the thesis or dissertation. Also, if the student is not the sole author of the work, the student's contribution to the work must be explained. Further details regarding formatting and submission of theses and dissertations is available online from the [Graduate College](#). Note that written permission must be obtained for the use of any copyrighted material.
- Reprints of published papers or preprints of manuscripts submitted for publication may be included as chapters in theses or dissertations if the student is the first or sole author and if the student's committee consents. Because the thesis or dissertation must represent an integrated body of original scholarly work, the relevance of the work to the thesis must be explained in the Introduction or elsewhere within the thesis. Reprints or preprints of papers on which the student is an author, but not the first author, may only be included as appendices, although the work that the student contributed may be included within the body of the thesis or dissertation. Written permission must be obtained for the use of any copyrighted material.
- Thesis must conform to the rules outlined on the [Graduate College web site](#).
- **The thesis** must be provided to the department's graduate academic advisor as an electronic file that; thesis will be archived in the PTYS library.

M.S. Defense Examination. All M.S. students must pass a M.S. Defense Examination. This examination consists of two parts: (1) a public presentation during which the candidate describes the results of their research and responds satisfactorily to questions from the audience, and (2) a closed examination, where the members of the M.S. Committee question the student to determine if the thesis satisfies the faculty's standards for intellectual and scholarly achievement. The entire proceedings may not exceed three hours. Members of the committee must be present for the entire examination.

- University of Arizona requirements for the M.S. Final Oral Defense Examination are available from the [Graduate College](#).
- All other requirements of the M.S. program must be completed prior to the M.S. Defense Examination.
- Student must complete the [Master's Plan of Study](#) and [Master's Completion of Degree Requirements](#) (GradPath).
- The duration of the public presentation is at the discretion of the M.S. Committee, but generally lasts 30 to 45 minutes.
- The M.S. Committee may accept the thesis as is, accept the thesis subject to modifications, or reject the thesis. In this last case, the student is dismissed from the program. A second exam may be permitted, in accordance with Graduate College regulations, if the Committee agrees that this is appropriate.
- Acceptance or rejection of the thesis is decided by majority vote of the committee.

Notes

- There is no Teaching Assistant requirement for the terminal M.S. degree.
- There is no Graduate Student Colloquium requirement for the terminal M.S. degree.

- There is no minor requirement for the terminal M.S. degree.
- There is no Oral Comprehensive Exam, other than the thesis defense, required for the terminal M.S.

Option 2: Obtaining an M.S. degree en route to a Ph.D

Once a student has passed both the written and oral parts of the Ph.D. candidacy exam, and has met the M.S. course requirements listed above (which is a subset of those required for the Ph.D.), **except for the thesis units 910 which are *not* required for the en-route M.S.**, the student may obtain a M.S. by filing a [Request for Change of Program form](#) with Graduate Student Academic Services (GSAS, UA Graduate College). [Instructions for this process are here.](#) This form allows students to add a program, the M.S. in this case, to their existing program, the Ph.D. Despite the name of the form, the student will only be adding a program and will not move out of the Ph.D. program.

There is no Teaching Assistant requirement for the en route M.S., no minor requirement, and no Graduate Student Colloquium requirement, although most students should have completed this already anyway.

The M.S. degree must be awarded before the Ph.D.

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