



THE UNIVERSITY OF ARIZONA  
COLLEGE OF SCIENCE

# LUNAR & PLANETARY LABORATORY

## Undergraduate Minor Program Approval

Undergraduate students may obtain a minor in Planetary Sciences. The PTYS minor consists of 18 units:

- **PTYS 403, 407, 411 (Required)**
- **3 other upper-division units in Planetary Science**
- **6 units chosen by the student and minor advisor subject to final approval by the PTYS Curriculum Committee.**

Date:	SID:
Student Name:	Email Address:
Major Dept.:	Other minor:

Course Number	Course Title	Units	Grade	Completed
PTYS 206	The Golden Age of Planetary Exploration	3		
PTYS 214	Astrobiology: A Planetary Perspective	3		
<b>PTYS 403</b>	<b>Physics of the Solar System</b>	<b>3</b>		
<b>PTYS 407</b>	<b>Chemistry of the Solar System</b>	<b>3</b>		
<b>PTYS 411</b>	<b>Geology and Geophysics of the Solar System</b>	<b>3</b>		
PTYS 413	Planetary Materials	3		
PTYS 416	Asteroids, Comets and Kuiper Belt Objects	3		
ASTR 418	Modern Astronomical Instrumentation and Techniques	3		
ASTR 455	Teaching College-Level Astronomy & Planetary Science	3		
ASTR 475	Planetary Astrobiology	3		
GEOS 419	Physics of the Earth	3		
GEOS 430	The Chemical Evolution of Earth	3		
ATMO 441A	Dynamic Meteorology	3		
ATMO 441B	Dynamic Meteorology	3		
PTYS 442	Mars	3		
PTYS 450	Origin of the Solar System	3		
PTYS 495B	Special Topics in Planetary Science	3		
	Independent study courses/directed research courses available for enrollment as needed if proposal is completed by instructor and student.			

Minor Completed		
	PTYS advisor signature	Date

*When courses have been completed, return form to Kuiper Space Sciences 333*

*Revised 10/29/2019*