## **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	Exploring Our Solar System	3		
PTYS 212	The Science and Politics of Climate Change	3		
PTYS 214	Life in the Cosmos	3		
PTYS 403	Physics of the Solar System	3		
PTYS 407	Chemistry of the Solar System	3		
PTYS 411	<b>Geology and Geophysics of the Solar System</b>	3		
PTYS 413	Planetary Materials	3		
PTYS 414	Introduction to Plasma Physics	3		
PTYS 416	Asteroids, Comets and Kuiper Belt Objects	3		
PTYS 423	Moons	3		
ASTR 418	Instrumentation and Statistics	2		
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 and Other Planetary Systems	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