

Program Change Request

Date Submitted: 01/12/17 12:31 pm

Viewing: **SPACPH : Space and Planetary Sciences,
Doctor of Philosophy**

Last approved: 08/14/15 5:07 pm

Last edit: 01/12/17 12:31 pm

Changes proposed by: pkoski

In Workflow

1. GRAD Dean Initial
2. GRAD Dean Initial
3. Director of Program Assessment and Review
4. Registrar Initial
5. GRSD Chair
6. GRAD Dean
7. Global Campus
8. Provost Review
9. University Course and Program Committee
10. Graduate Committee
11. Faculty Senate
12. Provost Final
13. Provost's Office-- Notification of Approval
14. Registrar Final
15. Catalog Editor Final

Approval Path

1. 01/12/17 12:33 pm
pkoski: Approved for GRAD Dean Initial
2. 01/12/17 12:34 pm
pkoski: Approved for GRAD Dean Initial
3. 01/13/17 9:37 am
agriffin: Approved for Director of Program Assessment and Review
4. 01/19/17 5:41 pm
lkulcza: Approved for Registrar Initial
5. 01/19/17 5:54 pm
pkoski: Approved for GRSD Chair
6. 01/19/17 5:55 pm
pkoski: Approved for GRAD Dean

- 7. 01/25/17 11:50 am
kbible: Approved for
Global Campus
- 8. 01/25/17 1:47 pm
tmartin: Approved for
Provost Review

History

- 1. Jun 10, 2015 by
calison
- 2. Aug 14, 2015 by
lkulcza

Catalog Pages Using this Program [Space and Planetary Sciences \(SPAC\)](#)

Submitter: User ID: calison
Phone: 575-6731

Academic Level Graduate

Select a reason for the proposed change: Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding Focused Study)

Program Status Active

Academic Unit Major/Field of Study

Are you adding, changing or deleting a concentration? No

Action	Proposed Code	Proposed Name

Are you adding, changing or deleting a track? No

Action	Proposed Code	Proposed Name

Are you adding, changing or deleting a focused study? No

Action	Proposed Code	Proposed Name

Effective Catalog Year **Fall 2017** ~~Summer 2014~~

College, School, Division Graduate School (GRAD)

Department Code Department of Graduate Dean (GRSD)

Program Code SPACPH

Degree	Doctor of Philosophy
CIP Code	40.0203 - Planetary Astronomy and Science.
Program Title	Space and Planetary Sciences, Doctor of Philosophy
Method of Delivery	On Campus
Is this program interdisciplinary or use courses from another College?	No
Does this change the total hours needed to complete the program?	No

Program Requirements, Description and 8-Semester Plan

Requirements for the Doctor of Philosophy Degree: Students are required to take a minimum of 72 hours beyond the baccalaureate degree to include a minimum 34 hours of required course work and 18 hours of [SPAC 700V](#). Course requirements are given below.

Non-Core Courses

SPAC 5111L	Space and Planetary Lab (Fa)	1
SPAC 5211	SPAC Proseminar (Sp)	1
SPAC 5123	Internship (Sp, Fa)	3

Core Courses

Select four of the following:		12
SPAC 5033	Stars and Planetary Systems (Odd years, Fa)	
SPAC 5313	Planetary Atmospheres (Irregular)	
SPAC 5413	Planetary Geology (Even years, Sp)	
SPAC 5513	Biochemical Evolution (Odd years, Sp)	
or SPAC 5553	Astrobiology (Even years, Sp)	
SPAC 5553	Astrobiology (Even years, Sp)	
SPAC 5613	Astronautics (Irregular)	

Space and Planetary Electives

(see list below) – Must take at least three courses. Substitutions may be made with the approval of the committee. 9

Other Electives

SPAC 5161	Seminar (Sp, Fa) (must take every semester)	4
Dissertation		
SPAC 700V	Doctoral Dissertation (Sp, Su, Fa)	18
Total Hours		47

Space and Planetary Electives

Note: Other courses may count as electives with the approval of the student's research adviser and committee. No more than two 4000-level courses may be counted toward the Ph.D. degree.

Planetary Astronomy

ASTR 4013/5013	Course ASTR 4013 Not Found	
GEOS 4433	Geophysics (Irregular)	3
CHEM 5263	Nuclear Chemistry (Odd years, Fa)	3
CHEM 5273	Cosmochemistry (Odd years, Sp)	3
PHYS 5513	Atomic and Molecular Physics (Odd years, Sp)	3

Planetary Geology

GEOS 5123	Stratigraphic Principles and Practice (Irregular)	3
GEOS 5423	Remote Sensing of Natural Resources (Even years, Sp)	3
GEOS 560V	Graduate Special Problems (Sp, Su, Fa)	2-6

Planetary Atmospheres

GEOS 4353	Meteorology (Fa)	3
GEOS 4363	Climatology (Sp)	3
GEOS/ENDY 5113	Global Change (Fa)	3

Origin and Evolution of Life

BIOL 4233	Genomics and Bioinformatics (Sp)	3
BIOL 4263	Cell Physiology (Fa)	3
BIOL 4353	Ecological Genetics/Genomics (Odd years, Fa)	3
BIOL 5463	Physiological Ecology (Odd years, Sp)	3
CHEM 5813	Biochemistry I (Fa)	3
CHEM 5843	Biochemistry II (Sp)	3

Astronautics and Orbital Mechanics

CSCE 5043	Advanced Artificial Intelligence (Irregular)	3
MEEG 4233	Microprocessors in Mechanical Engineering I: Electromechanical Systems (Irregular)	3
MEEG 4433	Aerospace Propulsion (Irregular)	3
MEEG 5273	Electronic Packaging (Irregular)	3

Additional Requirements: Students are required to complete a thesis or dissertation describing original research work in the space and planetary sciences that must be presented to and successfully defended before their committee. In addition, Ph.D. students must pass a candidacy examination.

The Ph.D. candidacy examination is administered by the student's committee and is designed to test the student's ability to assimilate, integrate and interpret material learned in the core required courses:

SPAC/ASTR 5033	Stars and Planetary Systems (Odd years, Fa)	3
SPAC/GEOS 5313	Planetary Atmospheres (Irregular)	3
SPAC/GEOS 5413	Planetary Geology (Even years, Sp)	3
SPAC/CHEM/BIOL 5513	Biochemical Evolution (Odd years, Sp)	3
SPAC 5613	Astronautics (Irregular)	3

While at the same time having a depth of understanding in the area of the student's research. Thus the candidacy examination will be in two parts: (1) a 2500-word integrative essay on a theme chosen by the committee, and (2) an oral defense of the thesis before the committee. Part (1) will be assigned six weeks before the candidacy defense and shall be presented to the committee two weeks before that defense. The defense will be held at a date determined by the committee but usually before the end of the student's second year in graduate school. The committee will judge

the examination as pass/fail and in the case of failure – and at the discretion of the committee – a second attempt to pass the qualifying examination is permitted within a period of time determined by the committee.

Students should also be aware of Graduate School requirements with regard to [doctoral degrees](#).

Are Similar Programs available in the area? No

Estimated Student Demand for Program: NA

Scheduled Program Review Date: NA

Program Goals and Objectives: NA

Learning Outcomes: NA

Description and justification of the request:

We are proposing to remove SPAC 5111L and SPAC 5513 from the list of required courses. The SPAC faculty approved removing the SPAC LAB requirement from the MS and PhD degree requirements as it no longer fulfills the original intent. The lab was originally required in order to assist students in getting to know faculty member in the program and thus help them make a decision about a possible supervisor. We now bring students in to work with a specific faculty member. This change was unanimously approved by the faculty.

The second request is to remove the SPAC 5513 course from the core options. This course is no longer offered as the faculty member who taught it is now retired. Further the pre-requisites for the course are seldom possessed by students in the SPAC program so consequently the course was repeatedly under-enrolled.

Program reviewer comments

Uploaded attachments: