

Date Submitted: 01/29/24 3:25 pm

Viewing: **SPACMS : Space and Planetary Sciences, Master of Science**

Last approved: 05/05/17 9:20 am

Last edit: 02/28/24 9:36 am

Changes proposed by: egbengts

Catalog Pages Using this Program

[Space and Planetary Sciences \(SPAC\)](#)

Submitter: User ID: [egbengts](#) [pkoski](#) Phone:

[575-5092](#) ~~5-4401~~

Program Status Active

Academic Level Graduate

Type of proposal Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Certificate, Degree or Program (including 15 or fewer hours, admission/graduation requirements, Focused Studies or Tracks)

Are you adding a concentration?
No

Are you adding or modifying a track?
No

Are you adding or modifying a focused study?
No

Effective Catalog Year Fall 2024

College/School Code
Graduate School and International Education (GRAD)

Department Code
Department of Graduate Dean (GRSD)

In Workflow

1. GRAD Dean Initial
2. GRAD Dean Initial
3. Director of Curriculum Review and Program Assessment
4. Registrar Initial
5. Institutional Research
6. GRSD Chair
7. ARSC Dean
8. ENGR Dean
9. GRAD Dean
10. Global Campus
11. Provost Review
12. Graduate Council
13. Faculty Senate
14. Provost Final
15. Registrar Final
16. Catalog Editor Final

Approval Path

1. 01/29/24 3:28 pm
Ed Bengtson (egbengts): Approved for GRAD Dean Initial
2. 01/29/24 3:29 pm
Ed Bengtson (egbengts): Approved for GRAD Dean Initial
3. 02/01/24 10:59 am
Lisa Kulczak (lkulcza): Approved for Director of Curriculum Review

Program Code SPACMS
 Degree Master of Science
 CIP Code

- and Program
 Assessment
4. 02/01/24 2:52 pm
 Gina Daugherty
 (gdaugher):
 Approved for
 Registrar Initial
 5. 02/01/24 3:16 pm
 Doug Miles
 (dmiles): Approved
 for Institutional
 Research
 6. 02/02/24 9:16 am
 Ed Bengtson
 (egbengts):
 Approved for GRSD
 Chair
 7. 02/02/24 3:43 pm
 Christopher Liner
 (liner): Approved for
 ARSC Dean
 8. 02/16/24 8:46 am
 Kevin Hall (kdhall):
 Approved for ENGR
 Dean
 9. 02/16/24 11:57 am
 Ed Bengtson
 (egbengts):
 Approved for GRAD
 Dean
 10. 02/16/24 11:58 am
 Suzanne Kenner
 (skenner): Approved
 for Global Campus
 11. 02/23/24 8:49 am
 Matthew Ganio
 (msganio): Rollback
 to GRAD Dean for
 Provost Review
 12. 02/26/24 3:35 pm
 Ed Bengtson

- (egbengts):
Approved for GRAD
Dean
- 13. 02/27/24 8:15 am
Suzanne Kenner
(skenner): Approved
for Global Campus
- 14. 02/27/24 9:03 am
Matthew Ganio
(msganio): Rollback
to GRAD Dean for
Provost Review
- 15. 02/28/24 9:37 am
Ed Bengtson
(egbengts):
Approved for GRAD
Dean
- 16. 02/28/24 10:17 am
Suzanne Kenner
(skenner): Approved
for Global Campus
- 17. 02/28/24 12:06 pm
Matthew Ganio
(msganio):
Approved for
Provost Review
- 18. 03/28/24 7:09 pm
Ed Bengtson
(egbengts):
Approved for
Graduate Council

History

- 1. May 5, 2017 by Pat Koski (pkoski)

40.0203 - Planetary Astronomy and Science.

Program Title

Space and Planetary Sciences, Master of Science

Program Delivery

Method

On Campus

Is this program interdisciplinary?

Yes

College(s)/School(s)

College/School Name
Fulbright College of Arts and Sciences (ARSC)
College of Engineering (ENGR)

Does this proposal impact any courses from another College/School?

No

What are the total hours needed to complete the program?

30

Program Requirements and Description

Requirements

Basic

Requirements for the Master’s Degree: At least 24 semester hours of courses plus at least six hours of [SPAC 6000V](#) [SPAC 600V](#) are required for a total of at least 30 hours beyond the baccalaureate degree. Students are required to take the following courses:

Non-Core Courses

SPAC 5211	Course SPAC 5211 Not Found	
SPAC 52101	SPAC Proseminar	<u>1</u>

Core Courses

Select three of the following: 3

SPAC 5033	Course SPAC 5033 Not Found	
SPAC 5313	Course SPAC 5313 Not Found	
SPAC 5413	Course SPAC 5413 Not Found	
SPAC 5553	Course SPAC 5553 Not Found	
SPAC 5613	Course SPAC 5613 Not Found	

Select three of the following (nine hours):9SPAC 50303 Astrophysics I: Stars and Planetary SystemsSPAC 53103 Planetary AtmospheresSPAC 54103 Planetary GeologySPAC 55503 AstrobiologySPAC 56103 Astronautics**Space and Planetary Electives**

(see list below) - Must take at least three courses (10 hours). Substitutions may be made with the approval of the committee.

10

ASTR 50403 Astrophysics II: Galaxies and the Large-Scale UniverseASTR 50803 Data Analysis and Computing in AstronomyBIOL 50071 Seminar in BiologyBIOL 50173 Laboratory in Prokaryote BiologyBIOL 52673 Cell PhysiologyBIOL 52373 Genomics and BioinformaticsBIOL 53583 Ecological Genetics/genomicsBIOL 54673 Physiological EcologyCHEM 51001 Introduction to ResearchCHEM 5050V Special Topics in ChemistryCHEM 58103 Biochemistry ICHEM 58403 Biochemistry IIELEG 5880V Special ProblemsELEG 52703 Electronic PackagingELEG 55503 Switch Mode Power ConversionELEG 59003 Engineering Technical WritingGEOS 5100V Special Problems in Physical GeosciencesGEOS 51103 Global ChangeGEOS 52503 GeomorphologyGEOS 52703 Principles of Geochemistry

<u>GEOS 52903</u>	<u>Introduction to Global Positioning Systems and Global Navigation Satellite Systems</u>	
<u>GEOS 53603</u>	<u>Climatology</u>	
<u>GEOS 55603</u>	<u>Tectonics</u>	
<u>GEOS 56503</u>	<u>GIS Analysis and Modeling</u>	
<u>MEEG 5920V</u>	<u>Individual Study in Mechanical Engineering</u>	
<u>PHYS 5020V</u>	<u>Individual Study in Advanced Physics</u>	
<u>MEEG 54003</u>	<u>Advanced Thermodynamics</u>	
<u>MEEG 58303</u>	<u>Aerospace Propulsion</u>	
<u>PHYS 53603</u>	<u>Scientific Computation and Numerical Methods</u>	
<u>PHYS 56503</u>	<u>Subatomic Physics</u>	
<u>SPAC 50303</u>	<u>Astrophysics I: Stars and Planetary Systems</u>	
<u>SPAC 53103</u>	<u>Planetary Atmospheres</u>	
<u>SPAC 54103</u>	<u>Planetary Geology</u>	
<u>SPAC 55503</u>	<u>Astrobiology</u>	
<u>SPAC 56103</u>	<u>Astronautics</u>	
Other Electives		
<u>SPAC 5161</u>	Course SPAC 5161 Not Found (must take every semester)	4
<u>SPAC 51601</u>	<u>Seminar (must take every semester)</u>	<u>4</u>
Thesis		
<u>SPAC 600V</u>	Course SPAC 600V Not Found	6
<u>SPAC 6000V</u>	<u>Master's Thesis</u>	<u>6</u>
Total Hours		30

NOTE: The student's committee consists of at least four faculty members; at least three of these must be from the space center faculty, drawn from three different departments, and these must include the graduate advisor and the chair of the committee. One member of the committee should be from outside of the space center.

Every student must register for a minimum of one credit hour of SPAC ~~6000V 600V~~ or ~~7000V 700V~~ in each term during which the student is away from campus and doing thesis or dissertation research.

~~research.~~

~~The number of 4000-level courses allowed in a program is limited to two and committee approval~~

~~is required.~~ Students should also be aware of Graduate School requirements with regard to master's degrees.

Are Similar Programs available in the area?

No	
Estimated Student Demand for Program	N/A
Scheduled Program Review Date	<u>2025-2026</u> 2018-19
Program Goals and Objectives	
Program Goals and Objectives	
N/A	
Learning Outcomes	
Learning Outcomes	
N/A	

Description and justification of the request

Description of specific change	Justification for this change
<p>1. The only change in program requirements is to delete the requirement that students may take up to two courses at the 4000 level.</p> <p>2. The other changes are editorial - making the course hours add up correctly in the table.</p>	<p>1. This is required by ADHE and the Graduate School.</p>

Upload attachments

Reviewer Comments

Lisa Kulczak (lkulcza) (01/30/24 4:23 pm): Updated submitter information, requested effective date and next scheduled program review date. ATTENTION REGISTRAR: Please remove Undergraduate Council from the workflow.

Lisa Kulczak (lkulcza) (02/01/24 10:59 am): Per conversation with the Graduate School dean's office, adjusted the number of hours required in the "select three of the following" to reflect nine hours; this resolves the discrepancy between the stated 30 hours for the degree and the number of hours totaled in the course list.

Gina Daugherty (gdaugher) (02/01/24 2:52 pm): Removed Undergraduate Council from workflow.

Matthew Ganio (msganio) (02/23/24 8:49 am): Rollback: In the electives block it says "(see list below) - Must take at least three courses (10 hours). Substitutions may be made with the approval of the committee." I don't see a list below that is being referred to.

Ed Bengtson (egbengts) (02/26/24 3:35 pm): Added list of Space and Planetary Electives

Matthew Ganio (msganio) (02/27/24 8:57 am): adjusted table for formatting reasons

Matthew Ganio (msganio) (02/27/24 9:03 am): Rollback: Thank for providing a list of Space and Planetary Electives. However, given the list contains all 3 cr hr classes, the total number of hours of Space and Planetary Electives needs to be divisible by 3. Currently at 10 hours total, it is not divisible by 3.

Ed Bengtson (egbengts) (02/28/24 9:35 am): Added seven 1-credit course offerings to Space & Planetary Electives to choose from to allow for 10 credits total.