

Cover Sheet: Request 14709

Change catalog entry to AST 3018

Info

| | |
|------------------------|---|
| Process | Course Modify Ugrad/Pro |
| Status | Pending at PV - University Curriculum Committee (UCC) |
| Submitter | Desika Narayanan desika.narayanan@ufl.edu |
| Created | 2/4/2020 8:27:33 PM |
| Updated | 10/16/2020 2:08:01 PM |
| Description of request | We have very slight updates to the catalog entry for 3018 |

Actions

| Step | Status | Group | User | Comment | Updated |
|-----------------------------------|----------|---|-----------------|---------|------------|
| Department | Approved | CLAS - Astronomy 16060000 | Elizabeth Lada | | 7/23/2020 |
| S2020_AST3018.pdf | | | | | 2/4/2020 |
| College | Approved | CLAS - College of Liberal Arts and Sciences | Joseph Spillane | | 10/16/2020 |
| No document changes | | | | | |
| University Curriculum Committee | Pending | PV - University Curriculum Committee (UCC) | | | 10/16/2020 |
| No document changes | | | | | |
| Statewide Course Numbering System | | | | | |
| No document changes | | | | | |
| Office of the Registrar | | | | | |
| No document changes | | | | | |
| Student Academic Support System | | | | | |
| No document changes | | | | | |
| Catalog | | | | | |
| No document changes | | | | | |
| College Notified | | | | | |
| No document changes | | | | | |

Course|Modify for request 14709

Info

Request: Change catalog entry to AST 3018

Description of request: We have very slight updates to the catalog entry for 3018

Submitter: Desika Narayanan desika.narayanan@ufl.edu

Created: 2/4/2020 8:23:29 PM

Form version: 1

Responses

Current Prefix

Enter the current three letter code (e.g., POS, ATR, ENC).

Response:

AST

Course Level

Select the current one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:

3

Number

Enter the current three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles.

Response:

018

Lab Code

Enter the current lab code. This code indicates whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Course Title

*Enter the current title of the course as it appears in the Academic Catalog. There is a 100 character limit for course titles. *

Response:

Astronomy and Astrophysics 1

Effective Term

Select the requested term that the course change(s) will first be implemented. Selecting "Earliest" will allow the change to be effective in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's expectations. Courses cannot be changed retroactively, and therefore the actual

effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires at least 6 weeks after approval of the course change at UF.

Response:
Earliest Available

Effective Year

Select the requested year that the course change will first be implemented. See preceding item for further information.

Response:
Earliest Available

Requested Action

Indicate whether the change is for termination of the course or any other change. If the latter is selected, all of the following items must be completed for any requested change.

Response:
Other (selecting this option opens additional form fields below)

Change Course Prefix?

Response:
No

Change Course Level?

Note that a change in course level requires submission of a course syllabus.

Response:
No

Change Course Number?

Response:
No

Change Lab Code?

Note that a change in lab code requires submission of a course syllabus.

Response:
No

Change Course Title?

Response:
No

Change Transcript Title?

Response:
No

Change Credit Hours?

Note that a change in credit hours requires submission of a course syllabus.

Response:
No

Change Variable Credit?

Note that a change in variable credit status requires submission of a course syllabus.

Response:
No

Change S/U Only?

Response:
No

Change Contact Type?

Response:
No

Change Rotating Topic Designation?

Response:
No

Change Repeatable Credit?

Note that a change in repeatable credit status requires submission of a course syllabus.

Response:

No

Change Course Description?

Note that a change in course description requires submission of a course syllabus.

Response:

Yes

Current Course Description

Response:

First part of a two part sequence. Survey of astronomy and astrophysics for physical science, engineering or mathematics majors. Covers gravitation, orbits and tides; the Moon's phases and eclipses; light and spectra; the solar system; and a few historical milestones. (P)

Proposed Course Description (50 words max)

Response:

First part of a two part sequence. Survey of astronomy and astrophysics for physical science, engineering or mathematics majors. Covers celestial sphere, gravitation, orbits, light, the Sun as a star, stellar interiors, stellar properties determination, interstellar medium, star formation and stellar evolution. (P)

Change Prerequisites?

Response:

No

Change Co-requisites?

Response:

No

Rationale

Please explain the rationale for the requested change.

Response:

The course topics have been updated as we have evolved this course to dovetail with AST 3019 better.

ASTRONOMY & ASTROPHYSICS I

AST3018, CLASS NUMBER 23906, 3 CREDITS, SPRING 2020

INSTRUCTOR: *Naibi Mariñas*

Office number: Bryant Hall, Room 224

E-mail address: (use Canvas Inbox)

phone number: (352) 294-1859

MEETING TIMES: *Tuesdays, 7th Period (1:55 – 2:45 pm) and Thursdays, 7th and 8th Periods (1:55 – 3:50 pm)*

CLASSROOM: *FLG260 (Tuesdays), FLG280 (Thursdays)*

FINAL EXAM: *To be announced*

OFFICE HOURS: *will be posted on the Canvas calendar*

COURSE WEBSITE: <https://ufl.instructure.com/>

TA: *Genevieve Markees*

E-mail address: gmarkees@ufl.edu

PREREQUISITE: PHY 2048 or PHY 2060 and MAC 2311 or MAC 3472

COREQUISITE: PHY 2049

REQUIRED TEXT: *Foundations of Astrophysics by Barbara Ryden & Bradley Peterson, Pearson Press. AST3018 will cover chapters 1 – 7 and 13 – 17.*

COURSE DESCRIPTION: This course offers a broad overview of modern astrophysics. This course is the first of a two-semester sequence consisting of AST3018 and AST3019. This sequence is intended for majors in a physical science or engineering who have completed the first semester (i.e. mechanics and optics) of a calculus based introductory physics course and are taking the second semester of a calculus-based physics course (i.e. electricity & magnetism and thermodynamics).

AST3018 will cover:

1. Motions of the sky
2. A historical development of our understanding of the solar system

3. The generation of light and the interaction of light with matter
4. Telescopes and modern astronomical instrumentation
5. The properties and classification of stars
6. The physics of stellar interiors and atmospheres
7. The formation and evolution of stars

AST3019 will cover:

- Special and General Relativity
- Stellar remnants: white dwarfs, neutron stars and black holes
- The nature of the Milky Way Galaxy
- The nature, formation, distribution and evolution of galaxies
- Cosmology and the early universe
- The solar system

GRADING POLICIES:

See <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> for general UF grading policies. Grades for the course will be based on the following:

| Assignment | Points or percentage |
|--|----------------------|
| Participation/Class Work | 5% |
| Homework | 15% |
| Observing Project | 30 % |
| Exams (Midterm exam 25%, Final Exam 25%) | 50 % |

GRADING SCALE:

| Grade | % Points | GPA | Grade | % Points | GPA | Grade | % Points | GPA |
|-------|------------|------|-------|------------|------|-------|------------|------|
| A | > 90 | 4.0 | B- | 77 to < 80 | 2.67 | D+ | 64 to < 67 | 1.33 |
| A- | 87 to < 90 | 3.67 | C+ | 74 to < 77 | 2.33 | D | 60 to < 64 | 1.0 |
| B+ | 84 to < 87 | 3.33 | C | 70 to < 74 | 2.0 | D- | 57 to < 60 | 0.67 |
| B | 80 to < 84 | 3.0 | C- | 67 to < 70 | 1.67 | F | < 57 | 0 |

CLASS WORK (5 %): Reading Assignments will be given out every week. It is your responsibility to keep up with the reading in order to participate in class. Class work will be given every week and collected at the end of class.

HOMEWORK (15 %) There will be approximately 6 homework assignments due every two weeks. The homework will include problems from the textbook and additional related problems. Class work will be graded by our TA.

OBSERVING PROJECT (30 %): One observing project will be assigned during the first few weeks of class. You will be required to go to a telescope observing session at the Campus Teaching Observatory. Sessions will be scheduled using Canvas and are mandatory. More detailed information will be given after the class drop/add period.

EXAMS (50 %): There will be two exams, a midterm and a final. The midterm will be in class on Feb 27th, 2020. The final exam will be on April 30th, 2020, at 12:30 pm. Each exam will count for 25% of your final grade. These exams will test your content knowledge, but will emphasize applying critical thinking skills and solving problems.

Students should bring a number 2 pencil and their UF ID to take the exam. All students have to present their UF ID's to the exam proctors at the end of the exam. **Without an ID, your exam will not be graded.**

LATE ASSIGNMENT POLICY: Students may submit individual assigned work after the stated deadline. A 10% grade penalty is assessed for work up to twenty-four hours late; an additional 10% is assessed for **EACH** additional day the work is late.

MAKE-UP POLICY: If a student misses an assignment due to an excused absence as specified in the undergraduate catalog and provides the instructor with timely

notification, they will be allowed a reasonable time to make up the missed work. *All make-up exams will be different from regular exams and the format will be at the discretion of the instructor.* **Birthdays, weddings, and trips out of town are not excuses for taking a make-up exam.**

GENERAL EDUCATION REQUIREMENTS:

AST 3018 & 3019 are GenEd physical science (P) courses. As the list of topics above demonstrates, the course covers not only the Universe and the bodies in it – planets, moon, stars, galaxies, etc. -- but also how we know about those things, making use of our understanding of the underlying physics of orbits and radiation. The course will focus on major scientific developments in astronomy & astrophysics and their impacts on society and the environment.

PHYSICAL SCIENCE: The physical and biological sciences provide instruction in the basic concepts, theories, and terms of science and the scientific method. Courses focus on major scientific developments and their impacts on society and the environment. You will formulate empirically-testable hypotheses derived from the study of physical processes and living things and you will apply logical reasoning skills through scientific criticism and argument.

STUDENT LEARNING OUTCOMES for a GenEd physical science course in astronomy are as follows:

I. Content

8. Know the basic concepts, theories, and terminology of natural science and the scientific method in astronomy.
9. Know the major scientific developments in astronomy and the impacts on society and the environment.
10. Know relevant processes that govern physical systems in astronomy.

II. Critical Thinking

1. Formulate empirically-testable hypotheses derived from the study of physical processes in astronomy.
2. Apply logical reasoning skills effectively through scientific criticism and argument in astronomy.
3. Apply techniques of discovery and critical thinking effectively to solve

experiments and to evaluate outcomes.

III. Communication

1. Communicate scientific findings clearly and effectively using oral, written, and/or graphic forms.
2. Write effectively in several forms, such as in research papers and laboratory reports.

COURSE POLICIES:

This is a one-term lecture class. The content in the class website is divided into modules that follow the textbook chapters. You can access the assignments and any other material related to the course from the class website. Partial class notes will be posted on the website after we complete each chapter; however, the full class notes will not be provided, and students are responsible for taking careful notes during class time. The due dates for all assignments are listed in the Course Calendar.

REQUIREMENTS: *Students are expected to:*

- **Attend all classes.**
- *Complete all homework and class activities in a timely fashion.*
- *Keep track of all in-class work and take class notes.*
- *Complete two observing projects and two exams.*

MAKE-UP POLICY: *Students are expected to complete all requirements by the specified due dates. If a student misses a class or an assignment due to an excused absence as specified in the undergraduate catalog and provides the instructor with timely notification, they will be allowed a reasonable time to make up the missed work. The format of a make-up test/exam will be at the discretion of the instructor. Students should contact the Dean of Student Office Care Area if they have personal or family issues that prevent them from attending class.*

COURSE TECHNOLOGY: *Access to and on-going use of a computer is required for all students. Competency in the basic use of a computer is required. Access to the class website will require use of a computer and a broadband connection to the Internet. For additional information on UF College of Liberal Arts and Sciences policy regarding*

computer requirements you can visit: <http://it.clas.ufl.edu/policies/student-computer-requirement>.

COURSE EVALUATION BY STUDENTS: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

This is an excerpt from the Academic Honesty Guidelines and Student Conduct Code in the University of Florida Undergraduate Catalog:

“Academic Honesty: The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge are diminished by cheating, plagiarism, and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff, and administrators who practice dishonest or demeaning behavior.”

Cheating is not tolerated in this class. Everyone in this class is expected to follow the University of Florida Honor Code: *We, the members of the University of Florida*

community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. Any student caught cheating will be referred to the Honor Code Chancellor.

On all work submitted for credit by students at the university, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

NETIQUETTE: COMMUNICATION COURTESY: In this class students can use e-mail and chat in the class website to communicate with the instructor and other students. All members of the class are expected to follow rules of common courtesy in all email messages and chats. <http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf>

GETTING HELP:

For issues with technical difficulties with the class website, please contact the UF Help Desk at:

- (352) 392-HELP - select option 2 or <https://lss.at.ufl.edu/help.shtml>

UF Counseling Services:

- On-campus resources are available at the UF Counseling & Wellness Center (392-1575) for students experiencing personal or stress related problems.

AST3018 TENTATIVE SCHEDULE

SPRING 2020

| | | |
|-------------------|---|---------------------|
| Jan 7, 9, 14 | Syllabus, motions of celestial objects, celestial sphere, seasons, calendar | Chapters 1 |
| Jan 16, 21 | Greeks to Kepler, Earth motion (HW 1 Due 1/24) | Chapter 2 |
| Jan 23, 28, 30 | Orbits | Chapter 3 |
| Feb 4, 6 | Earth-Moon System (HW 2 Due 2 Due 2/7) | Chapter 4 |
| Feb 11, 13, 18 | Radiation | Chapter 5 |
| Feb 20, 25 | Telescopes and detectors (HW 3 Due 2/21) | Chapter 6 |
| Feb 27 | Midterm Exam | Chapters 1-6 |
| March 3, 5 | No Class – Spring Break | |
| March 10, 12 | The Sun | Chapter 7 |
| March 17, 19 | Properties of Stars (HW 4 Due 3/20) | Chapter 13 |
| March 24, 26 | Stellar Atmospheres | Chapter 14 |
| March 31, April 2 | Stellar Interiors (HW 5 Due 4/3) | Chapter 15 |

| | | |
|------------------------------|-----------------------------------|----------------------|
| April 7, 9 | ISM, Star Formation | Chapter 16 |
| April 14, 16, 21 | Stellar Evolution (HW 6 Due 4/17) | Chapter 17 |
| April 30th | Final Exam | 12:30-2:30 PM |