

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Undergraduate Programs</b>	UUPC Approval <u>3/25/24</u> UFS Approval _____ Banner _____ Catalog _____
	Department <u>Physics</u> College <u>Charles E. Schmidt College of Science</u>	

<b>Program Name</b> Astronomy Minor	<input checked="" type="checkbox"/> <b>New Program*</b> <input type="checkbox"/> <b>Change Program*</b>	<b>Effective Date</b> (TERM & YEAR) Fall 2024
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**Please explain the requested change(s) and offer rationale below or on an attachment.**

The primary intent of this degree is to prepare undergraduate B.S. physics majors to attend graduate school intending to earn a masters or doctorate in astronomy and astrophysics. The minor builds on the existing physics major and provides students the background needed in astronomy and astrophysics to succeed in graduate school. In addition, students in other majors, such as Engineering, Journalism and Communications, Marketing, History, and Philosophy may also want to have a minor in astronomy to enhance their career potential.

In addition to courses listed below, this program will require a C or better in (MAC 1105 or MAC 2311) and (PHY 2053 or PHY 2048) in fulfillment of prerequisites for the upper-division coursework.

Students are required to earn at least 12 credits (9 of which must be upper division) with a grade of C or better from among the required courses listed below. At least 9 of these credits must be completed at Florida Atlantic University. The requirements are:

- AST 2002 - Introduction to Astronomy (3 cr)
- AST 3019 - Astronomy and Astrophysics (3 cr)
- Choose 2 from the following list:
- AST 3722 - Techniques in Observational Astronomy (3 cr)
- AST 3110 - Solar System Astronomy (3 cr)
- AST 4300 - Stars and the Galaxy (3 cr)
- AST 4402 - Galaxies and Cosmology (3 cr)

*\*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.*

<b>Faculty Contact/Email/Phone</b> Ata Sarajedini / asarajedini@fau.edu / 352-281-4286	<b>Consult and list departments that may be affected by the change(s) and attach documentation</b>
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<b>Approved by</b> Department Chair _____ College Curriculum Chair _____ College Dean _____ UUPC Chair <u>Korey Sorge</u> Undergraduate Studies Dean <u>Dan Meeroff</u> UFS President _____ Provost _____	<b>Date</b> 3/11/24 3/13/24 <u>3/13/24</u> <u>3/25/24</u> <u>3/25/24</u>
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Email this form and attachments to [mianning@fau.edu](mailto:mianning@fau.edu) seven business days before the UUPC meeting.

# Minor in Astronomy

The Physics Department would like to propose a new Minor in Astronomy. This program consists of:

- 7-8 credits of prerequisites: (MAC 1105 or MAC 2311) and (PHY 2053 or PHY 2048),
- 2 required courses (AST 2002 and AST 3019) for a total of 3 lower-division and 3 upper-division credits, and
- 2 additional courses (6 upper-division credits) from a list of options.

In total, this is a 12 credit program with 9 of these credits at the upper-division.

## Background for Proposal

In recent years, the Physics Department has gained a number of faculty with expertise in Astronomy. We would like to leverage these faculty to offer a new program that enhances the educational experience for Physics majors and enhances visibility of our program in other departments around the university.

## Comparison to Other Programs

This program was developed with comparison to comparable programs at other Florida SUS schools. Here are 4 other comparable programs for comparison.

- The Astronomy Minor at the University of Florida is a 15 credit program. The difference in credit is associated with them having a two-course sequence (AST 3018 and AST 3019) that we have combined into a single course (AST 3019).
- The Minor in Astrophysics at Florida State University is a 13 credit program. However, only 3 of these credits is in addition to the General Physics sequence (PHY 2048+L and PHY 2049+L).
- The Astronomy Minor at the University of Central Florida is a 10 credit program. 4 of these credits are from General Physics (PHY 2048+L).
- The Astronomy Minor at the University of South Florida is a 12 credit program. 6 of these credits are lower-division and 6 are upper-division.

## PHYSICS ASTRONOMY MINOR

*(Minimum of 12 credits required)*

The primary intent of this minor is to prepare undergraduate B.S. Physics majors at FAU to attend graduate school intending to earn a master's or doctorate in Astronomy and Astrophysics. The minor builds on the existing Physics major and provides students the background needed in astronomy and astrophysics to succeed in graduate school. In addition, students in other majors, such as Engineering, Journalism and Communications, Marketing, History, and Philosophy may also want to have a minor in Astronomy to enhance their career potential.

In addition to courses listed below, this program will require a "C" or better in (MAC 1105 or MAC 2311) and (PHY 2053 or PHY 2048) in fulfillment of prerequisites for the upper-division coursework.

Students are required to earn at least 12 credits (9 of which must be upper division) with a grade of C or better from among the required courses listed below. At least 9 of these credits must be completed at Florida Atlantic University.

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### Required Course List

Introduction to Astronomy	AST 2002	3
Astronomy and Astrophysics	AST 3019	3
<b><i>Choose at least 2 courses from the following list</i></b>		
Techniques of Observational Astronomy	AST 3722	3
Solar System Astronomy	AST 3110	3
Stars and the Galaxy	AST 4300	3
Galaxies and Cosmology	AST 4402	3
<b>Total</b>		<b>12</b>

Overall, this degree program requires 10-11 lower-division credits and 9 upper-division credits, including prerequisites.