Twin Cities Campus

Astrophysics Minor

Astrophysics, Minnesota Institute for

College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2017
- Required credits in this minor: 27 to 29

Students in the minor learn the physical principles underlying study of the solar system, stars, galaxy, and universe, as well as the methodology behind observations and conclusions.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Minor Requirements

Students may complete no more than one degree in the Astrophysics program: a B.A. or a B.S. or a minor.

Math

MATH 1271 - Calculus I [MATH] (4.0 cr)
or MATH 1371 - CSE Calculus I [MATH] (4.0 cr)
or MATH 1571H - Honors Calculus I [MATH] (4.0 cr)
MATH 1272 - Calculus II (4.0 cr)
or MATH 1372 - CSE Calculus II (4.0 cr)
or MATH 1572H - Honors Calculus II (4.0 cr)

Physics

PHYS 1301W - Introductory Physics for Science and Engineering I [PHYS, WI] (4.0 cr)
or PHYS 1401V - Honors Physics I [PHYS, WI] (4.0 cr)
PHYS 1302W - Introductory Physics for Science and Engineering II [PHYS, WI] (4.0 cr)
or PHYS 1402V - Honors Physics II [PHYS, WI] (4.0 cr)
PHYS 2303 - Physics III: Physics of Matter (4.0 cr)
or PHYS 2503 - Physics III: Intro to Waves, Optics, and Special Relativity (4.0 cr)
or PHYS 2503H - Honors Physics III (4.0 cr)

Minor Courses

AST 2001 - Fundamental Astrophysics (4.0 cr)
Take 1 or more course(s) from the following:

- AEM 4301 - Orbital Mechanics (3.0 cr)
- AEM 4501 - Aerospace Structures (3.0 cr)
- PHYS 3022 - Introduction to Cosmology (3.0 cr)
- PHYS 4051 - Methods of Experimental Physics I (5.0 cr)
- EE 3601 - Transmission Lines, Fields, and Waves (3.0 cr)
- ESCI 3006 - Rocks and Stars: Introduction to Planetary Science (3.0 cr)
- ESCI 3303W - Geochemical Principles [WI] (4.0 cr)
- MATH 3283W - Sequences, Series, and Foundations: Writing Intensive [WI] (4.0 cr)
- ME 3324 - Introduction to Thermal Science (3.0 cr)
- AST 4xxx
- AST 5xxx

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