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## **PHYSICS MINOR**

#### Introduction

Please click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-liberal-arts-sciences/physics/) to see Physics department information.

The department of Physics at the University of Colorado Denver enriches understanding of how the world works by incorporating physics in every aspect of life. Good intuition about how things work has been, since the time of Galileo, a hallmark of physicists.

CU Denver's faculty is committed to providing substantive applied research experiences for our undergraduate students by incorporating aspects of every day life into their classrooms and research. A major in physics is one of the few academic degree programs that prepares its students for an amazing array of careers including computer analyst, engineer, technical writer, industrial marketer, doctor, and lawyer.

Our faculty is committed to provide students with opportunities for laboratory experience in a research environment. Students work elbow-to-elbow with their professor mentors on such projects as:

- Applying chaos and complex systems theory to problems ranging from the onset of turbulence in fluid flows to the erratic motions of loads hanging from cranes aboard ships at sea
- Study of quasar jets and other associated dynamical properties, supernovae and nucleosynthesis
- Superconducting Quantum Interference Devices (SQUIDs) specifically the fabrication of microelectronic SQUIDs
- Applying non-linear dynamics and stochastic modeling to biological systems to understand how variations in genotype can lead to unique behavior
- Developing detection techniques in the search for the Dark Matter component of our Universe
- · Applying physics to archaeology and historic preservation
- · Developing ways to help students learn physics better

Students are strongly encouraged to consult with the Physics advisor, meet physics faculty engaged in Pure & Applied Physics research, attend departmental seminars, and explore ways that Physics relates to research undertaken by faculty in other disciplines.

#### For more information, contact:

Michael "Bodhi" Rogers (Physics advisor) Email: physics.chair@ucdenver.edu Office: North Classroom 3123B

These program requirements are subject to periodic revision by the academic department, and the College of Liberal Arts and Sciences reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major, minor and CLAS advisors to confirm the best plans of study before finalizing them.

#### **Program Delivery**

· This is an on-campus program.

#### **Declaring This Minor**

 Click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/ schools-colleges-departments/college-liberal-arts-sciences/ #policiestext) to go to information about declaring a minor.

#### **General Requirements**

Students must satisfy all requirements as outlined below and by the department offering the minor.

 Click here (http://catalog.ucdenver.edu/cu-denver/undergraduate/ academic-policies-procedures/) for information about Academic Policies

#### **Program Requirements**

- 1. Students must complete a minimum of 16 PHYS credit hours.
- Students must complete a minimum of six upper-division (3000-level and above) PHYS credit hours.
- 3. Students must earn a minimum grade of C- (1.7) in all courses that apply to the minor and must achieve a minimum cumulative minor GPA of 2.0. All graded attempts in required and elective courses are calculated in the minor GPA. Courses taken using P+/P/F or S/U grading cannot apply to minor requirements.
- Students must complete a minimum of nine PHYS credit hours with CU Denver faculty.

# Program Restrictions, Allowances and Recommendations

- 1. A student majoring in physics cannot earn a minor in physics.
- A student seeking a minor in physics who also wants to minor in astrophysics or biophysics can only use one of the 3000-level and above courses applied to the Physics minor for their Astrophysics Minor or Biophysics Minor requirements.

#### **Physics Minor Requirements**

Code Title Hours

Complete the following Introductory Physics Lecture/Lab courses:

PHYS 2010 College Physics I

or PHYS 231 General Physics I: Calculus-Based

PHYS 2321 Intro Experimental Phys Lab I

or PHYS 235 Applied Physics Lab I

PHYS 2020 College Physics II

or PHYS 233 General Physics II: Calculus-Based

PHYS 2341 Intro Experimental Phys Lab II

or PHYS 236 Applied Physics Lab II

Complete six upper division (3000-level or higher) PHYS elective credit hours.

Total Hours 16

### Note

Electives with a prefix other than PHYS may be considered in consultation with your departmental academic advisor and with approval of the physics department chair.

To learn more about the Student Learning Outcomes for this program, please visit our website.