

Physics, B.S.

Department of Physics, 303-556-2454, North Classroom 3123

College of Letters, Arts and Sciences

Catalog 15-16

This sheet applies to the 2015-16 catalog *only*. It does not replace the full catalog or departmental advising sheets as official statements of requirements. Students with declared majors *must* work with a faculty advisor on course selection and sequencing to ensure a timely graduation.

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|---|----------------|
| General Studies | 38-41 hours |
| Major courses | 41 |
| Required ancillary courses | 16 |
| Minor courses | 18 min |
| Electives | 4-7 hours |
| Total to graduate (min. 40 hrs upper division) | 120 min |

Students who have reached junior standing (60 hrs.) should request a CAPP (graduation compliance report) and review it with a faculty advisor.

***TO BE COMPLETED WITHIN FIRST 30 COLLEGE-LEVEL CREDIT HOURS**

Written Communication

- ___ ENG 1010 (3 hrs.) Composing Arguments*
- or** ENG 1008/1009 (6 hrs.) Intro to Composition, Parts 1 & 2*
- ___ ENG 1020 (3 hrs.) Freshman Comp: Analysis, Research, & Documt.
(ENG 1020 must be completed within 45 credit hours)

Oral Communication*

- ___ (3 hrs.)

Quantitative Literacy*

- ___ MTH 1110 (4 hrs.) College Algebra or higher level math
- NOTE: MTH 1110 & MTH 1120 OR MTH 1400 are prereqs for MTH 1410 do **not** take MTH 1112 College Algebra through Modeling*

Arts and Humanities

- ___ (3 hrs.)
- ___ (3 hrs.)

Historical

- ___ (3 hrs.)

Natural and Physical Sciences May not be PHY courses

- ___ CHE 1800 (4 hrs.) *Recommended - see Physics Advisor*
- ___ CHE 1810 (4 hrs.) + CHE 1850 (2hrs.) *Recommended - see Physics Advisor*

Social and Behavioral Sciences I

- ___ (3 hrs.)

Social and Behavioral Sciences II

- ___ (3 hrs.)

Global Diversity may be satisfied within General Studies. May not be a PHY course.

- ___ (3 hrs.)

Multicultural Requirement

may be satisfied in Gen Studies, major, minor, or electives

MAJOR COURSES Please see a Faculty Advisor in PHY Department

A grade of C- or better required in all courses in the program.

- ___ * PHY 2311 (4hrs.) General Physics I
- ___ * PHY 2321 (1hr.) General Physics I Lab
- ___ * PHY 2331 (4hrs.) General Physics II
- ___ * PHY 2341 (1hr.) General Physics II Lab
- ___ PHY 2711 (3hrs.) Vibrations and Waves
- ___ PHY 2811 (4hrs.) Modern Physics I
- ___ PHY 3011 (3hrs.) Modern Physics II
- ___ PHY 3211 (4hrs.) Analytical Mechanics
- ___ PHY 3411 (3hrs.) Thermal Physics
- ___ PHY 3711 (2hrs.) Physics Lab I
- ___ PHY 3811 (3hrs.) Quantum Mechanics
- ___ PHY 4331 (4hrs.) Electricity and Magnetism
- ___ PHY 4611 (2hrs.) Computational Physics I
- ___ PHY 4711 (2hrs.) Advanced Physics I Lab
- ___ PHY 4921 (1hr.) Physics Senior Seminar (Senior Experience)

*A one-year sequence of PHY 2010 - PHY 2020 - PHY 2030 - PHY 2040 may be substituted for the PHY 2311 - PHY 2331 - PHY 2321 - PHY 2341 requirements **with the consent of the Physics Department**.

NOTE: Most of the above courses have math prerequisites. Check prerequisites in the current MSU Denver catalog before registering for the above courses.

Required Ancillary Courses: *See catalog.msudenver.edu for course prerequisites*

- ___ MTH 1410 (4hrs.) Calculus I
- ___ MTH 2420 (4hrs.) Calculus III
- ___ MTH 2410 (4hrs.) Calculus II
- ___ MTH 3420 (4hrs.) Differential Equations

NOTES: Students are encouraged by the Physics department to complete one year of general chemistry and one year of electronics. See Physics faculty advisor for details.

MINOR (required)

ELECTIVES