Physics, B.S.
Department of Physics, 303-556-2454, North Classroom 3123
College of Letters, Arts and Sciences

Catalog 14-15

This sheet applies to the 2014-15 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.

*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
41 hrs

Required Ancillary Courses
16 hrs

Electives
18 min

Total to graduate (min. 40 hrs upper division) 120 min

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 4301 (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)

EFFECTIVES