

## Physics major course requirements

### For a B.A. with a major in Physics (see reverse for B.S.)

#### Required in Physics (33 credit hours)

- \_\_\_ Phys 201 – Physics I (5) [Fall]
- \_\_\_ Phys 203 – Calculus-Based Physics II (5) [Spring]
- \_\_\_ Phys 204 – Modern Physics (5) [Spring]
- \_\_\_ Phys 207 – Introduction to Electronics (2) [Fall]
- \_\_\_ Phys 311 - Classical Mechanics (4) [Fall]
- \_\_\_ Phys 350 – Advanced Physics Laboratory (2) [Spring]
- \_\_\_ Phys 360 - Junior Seminar (1) [full-year course, meets once a week]
- \_\_\_ Phys 460 - Senior Seminar (1) [full-year course, meets once a week]

#### plus, 4 credit hours from the following courses:

- \_\_\_ Phys 330 - Statistical and Thermal Physics (4)
- \_\_\_ Phys 332 - Electromagnetism (4)
- \_\_\_ Phys 411 - Quantum Mechanics (4)

#### plus, 4 credit hours taken at the 300 level or above:

- \_\_\_ Phys 313 – Electronics (2)
- \_\_\_ Phys 314 – Digital Electronics (2)
- \_\_\_ Phys 320 - Computational Physics (2)
- \_\_\_ Phys 321 - Signal Processing (2)
- \_\_\_ Phys 325 - Topics in Contemporary Physics (2)
- \_\_\_ Phys 330 - Statistical and Thermal Physics (4)
- \_\_\_ Phys 332 - Electromagnetism (4)
- \_\_\_ Phys 380 - Topics (1-4)
- \_\_\_ Phys 411 - Quantum Mechanics (4)
- \_\_\_ Phys 490 - Independent Study (1-4)
- \_\_\_ Phys 491 - Internship (1-4)
- \_\_\_ Phys 498 - Senior Thesis (1-4)
- \_\_\_ Phys 499 - Senior Honors Thesis (0-4)

#### Required in Related Departments (17 credit hours)

- \_\_\_ Math 201 - Calculus I (4)
- \_\_\_ Math 202 - Calculus II (4)
- \_\_\_ One additional math course. Either
  - \_\_\_ Math 212 - Multivariable Calculus (4) OR
  - \_\_\_ Math 215 - Differential Equations (4)
- \_\_\_ Lab-based science course. (5) Either
  - \_\_\_ Biol 170 – Concepts of Biology: Biological Information, Reproduction, and Evolution (5)
  - \_\_\_ Biol 180 – Concepts of Biology: Energy and Resources in Biology (5)
  - \_\_\_ Comp 150 – Computer Programming I (5)
  - \_\_\_ Chem 121B - Models of Chemical Systems (5) with Chem 162 – Chemical Structure and Analysis (5) also recommended
  - \_\_\_ Geol 150 – Physical Geology (5)
  - \_\_\_ Geol 160 – Environmental Geology (5)
  - \_\_\_ Esci 101 – Introduction to Environmental Science (5)

**For a B.S. with a major in Physics (see reverse for B.A.)**

Required in Physics (43 credit hours)

- \_\_\_ Phys 201 – Physics I (5) [Fall]
- \_\_\_ Phys 203 – Calculus-Based Physics II (5) [Spring]
- \_\_\_ Phys 204 – Modern Physics (5) [Spring]
- \_\_\_ Phys 207 – Introduction to Electronics (2) [Fall]
- \_\_\_ Phys 311 - Classical Mechanics (4) [Fall]
- \_\_\_ Phys 350 – Advanced Physics Laboratory (2) [Spring]
- \_\_\_ Phys 360 - Junior Seminar (1) [full-year course, meets once a week]
- \_\_\_ Phys 460 - Senior Seminar (1) [full-year course, meets once a week]

plus, 4 credit hours from the following courses:

- \_\_\_ Phys 330 - Statistical and Thermal Physics (4)
- \_\_\_ Phys 332 - Electromagnetism (4)
- \_\_\_ Phys 411 - Quantum Mechanics (4)

plus, 2 credit hours of research from:

- \_\_\_ Phys 490 - Independent Study (1-4)
- \_\_\_ Phys 491 - Internship (1-4)
- \_\_\_ Phys 498 - Senior Thesis (1-4)
- \_\_\_ Phys 499 - Senior Honors Thesis (0-4)

plus, 12 additional credit hours at the 300 level or above:

- \_\_\_ Phys 313 – Electronics (2)
- \_\_\_ Phys 314 – Digital Electronics (2)
- \_\_\_ Phys 320 - Computational Physics (2)
- \_\_\_ Phys 321 - Signal Processing (2)
- \_\_\_ Phys 325 - Topics in Contemporary Physics (2)
- \_\_\_ Phys 330 - Statistical and Thermal Physics (4)
- \_\_\_ Phys 332 - Electromagnetism (4)
- \_\_\_ Phys 380 - Topics (1-4)
- \_\_\_ Phys 411 - Quantum Mechanics (4)
- \_\_\_ Phys 490 - Independent Study (1-4)
- \_\_\_ Phys 491 - Internship (1-4)
- \_\_\_ Phys 498 - Senior Thesis (1-4)
- \_\_\_ Phys 499 - Senior Honors Thesis (0-4)

Required in Related Departments (30 or 31 credit hours)

- \_\_\_ Math 201 - Calculus I (4)
- \_\_\_ Math 202 - Calculus II (4)
- \_\_\_ Math 212 - Multivariable Calculus (4)
- \_\_\_ Math 215 - Differential Equations (4)
- \_\_\_ Comp 150 - Computer Programming I (5)
- \_\_\_ Two additional courses from the following (9 or 10)
  - \_\_\_ Biol 170 – Concepts of Biology: Biological Information, Reproduction, and Evolution (5)
  - \_\_\_ Biol 180 – Concepts of Biology: Energy and Resources in Biology (5)
  - \_\_\_ Comp 250 – Computer Programming II (4)
  - \_\_\_ Chem 121B – Models of Chemical Systems (5)
  - \_\_\_ Chem 162B – Chemical Structure and Analysis (5)
  - \_\_\_ Geol 150 – Physical Geology (5)
  - \_\_\_ Geol 160 – Environmental Geology (5)
  - \_\_\_ Esci 101 – Introduction to Environmental Science (5)