

# The Physics Major

## **Required Introductory Physics Sequence (17 credits)**

PHYS 165 (3): Introduction to Programming for the Physical Sciences \*

PHYS 171 (3): Introductory Physics: Mechanics and Thermal Physics

PHYS 174 (1): Physics Lab Introduction

PHYS 272 (3): Fields

PHYS 275 (2): Experimental Physics I: Mechanics, Heat, and Fields

PHYS 273 (3): Waves

PHYS 276 (2): Experimental Physics II: Electricity and Magnetism

## **Supporting Mathematics/Mathematical Methods Courses (15 credits)**

MATH 140 (4): Calculus I

MATH 141 (4): Calculus II

MATH 241 (4): Calculus III

PHYS 274 (3): Mathematical Methods for Physics I

## **Physics Major - Upper Level Requirements (37 credits)**

PHYS 371 (3): Modern Physics

PHYS 373 (3): Mathematical Methods for Physics II

PHYS 375 (3): Experimental Physics I II: Electromagnetic Waves, Optics and Modern Physics

PHYS 401 (4): Quantum Physics I

PHYS 402 (4): Quantum Physics II

PFIYS 404 (3): Introduction to Statistical Thermodynamics

PHYS 405 (3): Advanced Experiments lab

or PHYS 407 (3): Undergraduate Experimental Research

PHYS 410 (4): Classical Mechanics

PHYS 411 (4): Intermediate Electricity and Magnetism

PHYS 4xx (3): Advanced Physics Elective I

PHYS 4xy (3): Advanced Physics Elective II

\*For students with experience with computer programming this can be satisfied by a new advanced level course PHYS 474 Computational Physics that will also count as one of the Advanced Physics Electives.