Physics BA / Accelerated 3-Year Plan (Sample)

*Requires ACP Credits

This academic map is a sample 3-year schedule to complete your major in an accelerated format. This map is not a substitute for academic advisement. Contact your advisor when making final selections. Courses in red text should be taken in the semester shown. This will help you graduate on time.

1

Fall Year 1
INTDIS 1003: University Studies
PHYS 1099: Windows on Physics
PHYS 2111: Mechanics and Heat
MATH 1900: Analytic Geom. & Calc. II
LANG 1001 in French, Spanish, Japanese or American Sign Language

Spring Year 1
GEN ED: US Hist. and Gov't (Winter 2-wk)
PHYS 2112: Electricity, Magnet., & Optics
MATH 2000: Analytic Geom. & Calc. III
CMP SCI 1250: Intro to Computing
GEN ED: Humanities and Fine Arts
LANG 1002 in French, Spanish, Japanese or American Sign Language

Summer Year 1
GEN ED: Social Sciences
GEN ED: Humanities and Fine Arts

2

Fall Year 2
MATH 2020: Intro to Differential Equat.
PHYS 3200: Math. Methds Theor.Physics
PHYS 3231: Intro to Modern Physics
GEN ED: Communication
GEN ED: Social Sciences
LANG 2101 in French, Spanish, Japanese or American Sign Language

Spring Year 2
PHYS 3221: Mechanics
PHYS 3223: Electricity and Magnetism
ENGL 3160: Writing in the Sciences
Cultural Diversity Requirement
Elective or Minor

Summer Year 2
Elective or Minor
Elective or Minor

3

Fall Year 3
PHYS 4331: Intro to Quantum Mech. **
CHEM 1111: Intro to Chemistry I
GEN ED: Humanities and Fine Arts
Elective or Minor
Elective or Minor

Spring Year 3
PHYS 4347, 4311 or ASTRON 4322 **
PHYS 4341 **
GEN ED: Social Sciences
Elective or Minor
Elective or Minor

Degree Complete!

* This academic map assumes the following Advanced Credit (ACP) courses were successfully taken in high school:
  - MATH 1035: Trigonometry
  - MATH 1030: College Algebra
  - MATH 1800: Analytic Geometry and Calculus I
  - ENGL 1100: First-Year Writing
  - HIST 1001: US History and Government

** Recommended course to fulfill Physics 3000-4000+ upper-division elective
CAREER OUTLOOK

Physics is a versatile degree that opens doors to many possible careers in science and technology. With skills in technology, computer proficiency, math and statistics, our graduates are successful at entering graduate programs and many earn doctoral degrees.

Our alumni are very successful and work in industry, academia, and national laboratories. We have alums at Boeing, Google, the National Security Agency, and NASA, serving as teachers in the St. Louis region, and serving as faculty or researchers at universities and companies across the United States.

SKILLS

- Demonstrate an understanding of basic physics concepts including classical mechanics, electricity and magnetism, and modern physics
- Demonstrate an understanding in several advanced undergraduate areas of physics/astronomy, such as observational astrophysics, biophysics, quantum mechanics, or experimental design
- Problem-solving, critical thinking and analytical reasoning as applied to scientific problems
- Conduct original scientific research as part of an interdisciplinary problem-solving team
- Identify possible errors in scientific data, and to assess the significance of observed results

Example Careers

- Computer Programmers
- Software engineers
- High School teachers
- Engineers, lasers and electronics
- Lab assistants
- Investment associates
- Business analysts

TAKE THE NEXT STEP

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