Physics BS / 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
CMP SCI 1250: Intro to Computing

2 Fall Year 2
MATH 2020: Intro to Differential Equat.
PHYS 3200: Math. Methds Theor.Physics
PHYS 3231: Intro to Modern Physics
ENGL 3160: Writing for the Sciences
CHEM 1111: Intro to Chemistry I

3 Fall Year 3
PHYS 4323: Modern Optics
PHYSC 4311: Adv. Physics Lab
PHYS or ASTRON 4000+ Elective
GEN ED: Humanities and Fine Arts

Spring Year 1
PHYS 2112: Electricity, Magnet., & Optics
MATH 2000: Analytic Geom. & Calc. III
MATH 2450: Linear Algebra
ASTRON 1050 or 1051
CMP SCI 2000+ or MATH 3250+ Elective

Spring Year 2
PHYS 3221: Mechanics
PHYS 3223: Electricity and Magnetism
PHYS 4341: Thermal and Statist. Physics
CHEM 1121: Intro to Chemistry II
GEN ED: Social Sciences
GEN ED: Humanities and Fine Arts

Spring Year 3
PHYS 4331: Intro to Quantum Mechanics
PHYS 4310: Modern Electronics
PHYS 4350: Computational Physics
PHYS or ASTRON 4000+ Elective
GEN ED: Humanities & Fine Arts

Summer Year 1
Cultural Diversity Requirement
GEN ED: Communication

Summer Year 2
GEN ED: Social Sciences
GEN ED: Social Sciences

* 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
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.

**Example Careers**
- Computer Programmers
- Software engineers
- High School teachers
- Engineers, lasers and electronics
- Lab assistants
- Investment associates
- Business analysts
- Data analyst
- Design Engineer

**SKILLS**
- Demonstrate an understanding of basic physics concepts including classical mechanics, electricity and magnetism, thermal and statistical physics, quantum mechanics, and modern electronics
- Design and perform basic physics experiments, assess the significance of their results, and interpret the observed outcomes
- Demonstrate an understanding of some areas of the most recent physics research, such as advances in materials physics or nanoscience
- Problem-solve, critical thinking and analytical reasoning as applied to scientific problems
- Conduct original scientific research as part of a problem-solving team
- Identify possible errors in scientific data, and to assess the significance of observed results

**TAKE THE NEXT STEP**

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(314)516-7005

UMSL Office of Admissions
(314) 516-5000