

Bachelor of Science Degree – Mathematics and Physics

2003-04

Department of Physics

A116 Barton Hall
(215) 204-7634

Chairperson: Dr. Edward Gawlinski

Faculty Advisor: Dr. Donald Neville

www.temple.edu/physics

- **123** credits, **90** of which must be in CST/CLA courses
- **45** credits must be upper level coursework in CST/CLA
- Appropriate Core Curriculum requirements:
 Traditional Core 45 Core to Core
- The following requirements for the Major:

[Math Sequence: 15 > 45 > C073 > C074 > C085 > 0086]

First Year

- Calculus I (Math C085 or H095)
- Calculus II (Math 0086 or H096)
- Classical Physics I (Physics C087, 121)
- Classical Physics II (Physics C088, 122)

Second Year

- Calculus III (Math 127)
- Basic Mathematical Concepts (W141)
- Optics (Physics 171)
- Mathematical Physics (Physics 184) or Math 351
- Electricity & Magnetism with Lab (Physics 187 & 187L)
- Intro to Modern Physics with Lab (Physics 188 & 188L)
- Differential Equations (Math 251)
- Introduction to Probability (233) [prereq Math 127]

Third Year

- Linear Algebra (147) or Math (148) [prereq one yr. of calculus]
- Modern Algebra (W205) [prereq Math 141 and 147]
- Advanced Calculus (247) [prereq Math 127]
- Mechanics (Physics 201)
- Thermodynamics (Physics 231)
- Electromagnetism (Physics 211)
- Computing for Scientists (Physics 161)
- Advanced Calculus (248) [prereq Math 247]

Fourth Year

- Experimental Physics (Physics W215)
- Mechanics (Physics 202)
- Quantum Mechanics (306)
- Numerical Analysis I (253) [prereq 3 terms of calculus, linear algebra, & basic knowledge of a high level programming language like FORTRAN, C, or PASCAL]
- Introduction to Functions of a Complex Variable (347) [prereq Math 247 and 248]

Traditional Core

- English 50 _____
- American Culture _____
- The Arts _____
- Individual and Society _____
- Studies in Race _____
- Foreign Language 2nd level* _____
- Foreign Language 3rd level* _____
- International Studies* _____
- International Studies (non western)* _____
- Science and Technology Level 1 _____
- Science and Technology Level 2 _____
- Quantitative Reasoning Level 1 _____
- Quantitative Reasoning Level 2 _____
- Intellectual Heritage X051 _____
- Intellectual Heritage X052 _____
- Writing Intensive Elective _____
- Writing Intensive Elective _____
- Writing Intensive Course in Major _____

*B.S.

- 2 International Studies (IS) or
- 2nd level of a language + 1 IS or
- 3rd level of a language /Exempt

Core 45 +

For students receiving 45 credits or more in transfer.

- English 50 _____
- American Culture _____
The Art _____
Individual and Society _____ } 2 of the 3
- Studies in Race _____
- Science and Technology Level _____
- Quantitative Reasoning Level _____
- Intellectual Heritage X051 or X052 _____
- Writing Intensive Elective (**Must be taken at Temple**)
- Writing Intensive in Major (**Must be taken at Temple**)
- Foreign Language• _____
- International Studies• _____

*B.S.

- 1 International Studies (IS) or
- 2nd level of a language/Exempt

Core to Core

For Students who have completed an associates degree from a college that has an established transfer agreement with Temple.

- Writing Intensive Elective (**Must be taken at Temple**) _____
- Writing Intensive in Major (**Must be taken at Temple**) _____

If English is your second language, speak with an advisor about possible exemption.

*Recommended for graduate school: Physics 211 and 202, or 321, or 341

revised 8/03