

Physics Major Checklist

Name: _____

Another Major?: _____

Class Year: _____

Foundational

_____ PHYS 141 *Mechanics*
 _____ PHYS 231 *Electricity & Magnetism*
 _____ PHYS 232 *Optics and Modern Physics*

Prerequisite

_____ Math-131 (or concurrent)
 _____ Math-132 (or concurrent)
 PHYS 141; MATH 132 (or concurrent); concurrent MATH 231 recommended

Required courses outside the department

_____ MATH 231 *Calculus III: Multivariable Calc* MATH 132
 _____ MATH 234 *Differential Equations* MATH 132
 _____ CHEM 111L *Introductory Chemistry I* (or AP credit)

Math / Experimental Methods

_____ PHYS 300 *Mathematical Methods of Physics* PHYS 231 & MATH 231, concurrent MATH 234 recommended
 _____ PHYS 320 *Modern Physical Measurements* PHYS 231 & 232 *Fulfills Writing II requirement*

Three additional advanced-level courses, at least two of which must be core courses

CORE

_____ PHYS 301 *Analytical Mechanics* PHYS 231 & either MATH 231 or 234
 _____ PHYS 302 *Electrodynamics* PHYS 231 & MATH 231, concurrent MATH 234 recommended
 _____ PHYS 313 *Quantum Mechanics* PHYS 232

ELECTIVE

_____ PHYS 304 *Statistical & Thermal Physics* PHYS 141 & MATH 132
 _____ PHYS 316 *Experimental Laser Optics* PHYS 231 & 232 *Fulfills Writing II requirement*
 _____ PHYS 317 *Relativity & Fundamental Particles* PHYS 231 & 232
 _____ PHYS 330 *Astronomy & Astrophysics* PHYS 231 & 232 (or permission of instructor)

Senior project

_____ PHYS 405 Senior Exercise [½ credit]

Physics courses offered every year Fall: PHYS 141, 232 Spring: PHYS 231, 300, 301

Physics courses offered every other year Fall: PHYS 313, 330 Spring: PHYS 317, 320
 Fall: PHYS 302, 304 Spring: PHYS 316, new elective coming...

Study Plan Worksheet Most physics electives are offered in alternating years, so taking the foundational courses as early as early as possible will give you the most flexibility in your schedule.

	Fall	Spring
First-Year	PHYS 141 MATH 131	PHYS 231 MATH 132
Sophomore	PHYS 232 MATH 231	PHYS 300 PHYS-301 MATH 234
Junior		
Senior		

Other Academic Considerations

_____ Study abroad?:

_____ Second major?:

Other courses you should consider

Applied math

Scientific computing

Engineering

Research

_____ Faculty research (PHYS 490):

_____ Summer research on campus:

_____ Summer REU/other research experience:

Grad School

_____ Interest in going to grad school?

Honors

Sigma Pi Sigma: Sigma Pi Sigma is the national physics honor society. To be eligible for membership, a student must have an overall GPA of at least 3.5, have completed at least four courses at Trinity towards the physics major, and have an A- average in physics courses. In addition, they must have done one of the following: participated in activities of the SPS, been a physics TA or grader, done research for credit in a physics faculty lab, or completed an additional physics course at Trinity or at another institution.

Honors in Physics at graduation: To be eligible for honors in physics at graduation a student must complete at least one additional physics course beyond the minimum required for the major, and have an average of at least a B+ in all physics courses. The additional course may be a semester of independent research (PHYS 399) or research (PHYS 490).

General education requirements

- | | | |
|--|---|-----------------------------------|
| <input type="checkbox"/> Arts | <input type="checkbox"/> Writing I | <input type="checkbox"/> Global |
| <input type="checkbox"/> Humanities | <input type="checkbox"/> Writing II | <input type="checkbox"/> Wellness |
| <input type="checkbox"/> Social Sciences | <input type="checkbox"/> 2 nd language | <input type="checkbox"/> IPE |