



PHYSICS MAJOR COURSE PLAN

CORE REQUIREMENTS

- ❖ Enter the grade for any Cornell class taken & the corresponding semester; for AP / placement credit, indicate "AP"
- ❖ For core requirements not yet taken, indicate the semester in which you intend to take those classes
- ❖ Courses in **bold** are honors level or more mathematically sophisticated options.
- ❖ Circle the math classes you have taken.

Sequence	Description		Fr. Fall	Fr. Spr.	Soph. Fall	Soph. Spr.	Jr. Fall	Jr. Spr.	Sr. Fall	Sr. Spr.
Introductory Sequence *2216 required if 1116 not taken 2207 & 2208 allowed only if started as bio major	Mechanics (1116 has special relativity; 1112 thermal phys.)	1112* 1116								
	Electricity & Magnetism	2213 2217								
	Waves (2218 also covers thermal physics)	2214 2218								
	*Special Relativity (1 unit S/U)	2216								
Quantum Physics	Quantum Physics I	3316								
	Quantum Physics II (Fall only)	3317								
Intermediate Mechanics & Electricity and Magnetism	Mechanics II (Spring only; take either 3314 OR 3318)	3314 3318								
	Electromagnetism II (Fall only; take either 3323 OR 3327)	3323 3327								
Lab Class	e.g. 3310, 3330, 3360, 4410,....									

Calculus II (integral calculus)	1120, 1910, 1220									
Multivariable Calculus	1920, 2220, 2130, 2240*									
Differential Equations	2930, 3230									
Linear Algebra	2940, 2210, 2310, 2230*									

CONCENTRATION : INSIDE CONCENTRATION OR OUTSIDE CONCENTRATION

- ❖ Select either the "Inside Concentration" OR an "Outside Concentration" – you cannot do both
- ❖ If you already know your concentration and/or the classes you intend to take for your concentration, please fill them in. Otherwise, wait until your meeting with the DUS and major advisor to fill out your concentration & related classes.
- ❖ **Inside Concentration** : **PHYS 4410** (Advanced Experimental Physics), **11 additional credits of 3000+ level physics courses**, and **TWO additional 3000+ level math classes** (or AEP 4210 & 4220), all beyond the core. Recommended classes include PHYS 3341 / AEP 4230 (Statistical Physics & Thermodynamics) and PHYS 4443 (Intermediate Quantum).
- ❖ **Outside Concentration** : 15 credits in an *internally coherent concentration* outside of physics which is agreed upon by your major advisor; 8 credits of which must be for 3000+ level classes. Some examples of outside concentrations include : astronomy, mathematics, computer science, philosophy, science writing, biology, chemistry, electrical engineering, political science. Classes can come from multiple departments.

Physics Major Concentration

Name of Class	Course #	Fr. Fall	Fr. Spr.	Soph. Fall	Soph. Spr.	Jr. Fall	Jr. Spr.	Sr. Fall	Sr. Spr.

Signature Approval of Major Advisor

Printed Name

Date