



## PHYSICS MAJOR FORM

### INSTRUCTIONS

- ❖ Fill out this form (front **AND** back) before meeting with the DUS; the form is PDF fillable
- ❖ Entry to the major typically requires completion of at least 2 physics & 2 math classes at Cornell with a B- average or higher
- ❖ If declaring the physics major, consider your potential advisor. The list of available advisors is : <http://bit.ly/2th442Q>
- ❖ Bring (and/or email) the form when meeting with the Physics DUS, Professor Kyle Shen. Meet by dropping in during regular DUS office hours (Mondays 2:00-4:00 PM in Clark 532A)
- ❖ After your new major advisor is assigned, complete the Physics Major Course Plan (reverse side) with your new advisor.
- ❖ After meeting with your new advisor, return this sheet to Sue Sullivan in 117 Clark Hall

### BIOGRAPHICAL INFORMATION

\_\_\_\_\_  
Last name First name Middle initial Gender

\_\_\_\_\_  
NetID Student ID # Graduation Year Citizenship

\_\_\_\_\_  
Major Concentration Double Major?

\_\_\_\_\_  
Ithaca Address Phone

\_\_\_\_\_  
Permanent Address Phone

### CHANGES TO STATUS

Adding Physics Major     Dropping Physics Major     Changing Advisor     Changing Concentration

Need key access to the SPS Lounge?                       Need to be added to SPS Listserve

Add to the Physics majors photo board outside the main Physics office. These photos are the same as on the Cornell student ID and labeled with your first and last name. By signing below, I consent my permission to the Physics Department to use my picture on the photo board.

\_\_\_\_\_  
Signature Date Printed Name

### FOR DUS USE ONLY

\_\_\_\_\_  
New advisor Previous advisor (if changing advisor and/or major)

\_\_\_\_\_  
New major (if dropping major)

\_\_\_\_\_  
DUS Approval for all above changes to status Date



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

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

**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