

## PHYSICS

*This document is a tool approved by the department as a complete and accurate checklist for 2014-15 Catalogue. Students who are meeting requirements with other courses than listed below must ask their advisor to file the waiver/substitution form (<http://www.cornellcollege.edu/registrar/gb-resources-faculty>). Students are expected to complete the major and minor requirements that were in effect at the time of Spring registration for their second year of courses. Transfer students who are admitted with sophomore or higher standing satisfy the requirements in effect when they begin their first course at Cornell. Students who have withdrawn from Cornell and are later readmitted follow the requirements in effect at the time of their readmission. Exceptions may be made by the department concerned in response to the student's petition, provided that such changes are feasible for and agreeable to the department.*

**Major:** A minimum of 14 course credits, which include:

	<b>Completed</b>	<b>To Be Completed</b>
1. CSC 140	_____	_____
2. MAT 120 or 121	_____	_____
3. MAT 122	_____	_____
4. PHY 161	_____	_____
5. PHY 162	_____	_____
6. PHY 263	_____	_____
7. PHY 302	_____	_____
8. PHY 303	_____	_____
9. PHY 312	_____	_____
10. MAT 221	_____	_____
11. MAT 236	_____	_____

And three additional course credits in Physics at or above the 300 level.

12. PHY 3_____	_____	_____
13. PHY 3_____	_____	_____
14. PHY 3_____	_____	_____

Students planning for graduate work in Physics should include PHY 305 and at least two courses selected from PHY 321,322, and 334. Students planning for graduate work are also strongly encouraged to take MAT 234 (Complex Variables), and CHE 323 and 324 (Physical Chemistry I and II).

**Capstone:** Physics majors conduct individual experimental projects of their own design in small groups during the advanced lab course. Following the advanced lab, students will conduct a literature search on the background of their experiment in more depth and then write an individualized paper, with emphasis on their particular contribution to the project. The paper must be submitted to their capstone advisor no later than two blocks after the start of the advanced lab. The student will revise the paper until it is accepted by the department. If it appears that the student is making insufficient progress towards the completion of the individual paper, then the student and registrar will be notified that the student is in danger of not completing the major requirements. Once the paper is approved, students are then required to present their findings in a public presentation. If the presentation is judged unacceptable, then the student will have the opportunity to give another presentation privately to the department.

**Physics Teaching Major:** minimum of 11 courses. Supporting work in the other natural sciences or mathematics is recommended.

	<b>Completed</b>	<b>To Be Completed</b>
1. MAT 120 or 121	_____	_____
2. MAT 122	_____	_____
3. PHY 121	_____	_____
4. PHY 161	_____	_____
5. PHY 162	_____	_____
6. PHY 263	_____	_____
7. PHY 302	_____	_____
8. PHY 303	_____	_____
9. PHY 312	_____	_____

And two additional course credits in Physics at or above the 300 level and

10. PHY 3____	_____	_____
11. PHY 3____	_____	_____

Supporting work in other natural sciences or mathematics is recommended.

Students with other majors who intend to ask for certification in Physics as a second field are required to complete only:

MAT 120 or 121, and PHY 161, 162, 263, 303.

Prospective teachers must also apply for admission to the Teacher Education Program and complete a second major in Secondary Education described under *Education*. Prospective teachers should request a current list of the specific teaching major course requirements from the Education office.

**Physics Minor:** A minimum of five course credits in Physics which include:

	<b>Completed</b>	<b>To Be Completed</b>
1. PHY 161	_____	_____
2. PHY 162	_____	_____
3. PHY 263	_____	_____
4. PHY 303	_____	_____
5. at least one other course in Physics at or above the 300 level	_____	_____