



2016-2017 Pathways Major Plan

Physics (BS)

Department of Earth and Physical Science
 School of Arts & Sciences
 Academic Core 2F09 | 718-262-2654

The following is a **suggested** plan of study for completion of this degree program.

The goal of a Major Plan is to ensure that students who completed an Associate’s Degree (AA or AS) graduate with no more than 120 credits and within a minimum of three years.

- All students should speak with an academic advisor about their academic programs.
This document is not a substitute for academic advisement.
- Students are encouraged to take Winter and Summer courses to facilitate their progress towards graduation.
- Transfer students do not need to take all courses in the plan; they should consult with an academic advisor.
- This plan requires transfer credit for the following courses:
 - ENGL 125 (English Composition I); MATH 119 (College Algebra System) + MATH 120 (Pre-Calculus)†
 - † If MATH 119 + MATH 120 are not transferred to York College, students should take MATH 119 + MATH 120 in the first semester.

	Credits		Credits
THIRD YEAR - FALL	12	THIRD YEAR - SPRING	14
MATH 121	4	MATH 122	4
PHSY 113 + 117	5	PHYS 114 + PHYS 118	5
College Option: Writing Intensive (WI)	3	CHEM 108 + CHEM 109	5
FOURTH YEAR - FALL	15	FOURTH YEAR - SPRING	12
MATH 221	4	MATH 223	3
CHEM 111 + CHEM 112	5	PHYS 312	3
PHYS 231	3	PHYS 351	3
PHYS 241	3	PHYS/ASTR Elective (400-level or higher)*	3
FIFTH YEAR - FALL	16		
College Option: Writing Intensive: PHYS 383 WI	3		
PHYS 321	3		
PHYS 441	3		
MATH 333	4		
PHYS/ASTR Elective (400-level or higher)*	3		

- York students are required to complete (pass) three (3) Writing intensive (WI) courses: two (2) in the lower division (100-200 level) and one (1) in the upper division (300-level).
- If you transferred to York College with an Associate’s Degree (AA or AS), or with credit for all General Education requirements, you are exempt from completing two (2) of your lower division (100-200 level) Writing Intensive (WI) courses. You must still complete one WI course in the upper division (300-level) within your major. If your major has no upper division WI course, you must take a WI course chosen in consultation with your major advisor.
- B.S. students must complete 60 credits of liberal arts – See Bulletin.
- Students are strongly encouraged to select a Minor program of study, in consultation with an academic advisor, especially those planning to attend graduate school. Minor courses would replace the “free electives” in the Two-Year Plan.

Notes on Physics Major Requirements

*Physics Electives: Choose two at 400-level or higher:

Course	Title	Credit	Prerequisite
PHYS 412	Classical Mechanics II	3	PHYS 312 / Coreq: MATH 223
PHYS 422	Electricity and Magnetism II	3	PHYS 321
PHYS 431	Modern Optics	3	PHYS 231, PHYS 241 or CHEM 322 / Coreq: MATH 223
PHYS 442	Nuclear and Particles Physics	3	PHYS 241 or CHEM 322 / Coreq: PHYS 321
PHYS 461	Solid State Physics	3	PHYS 351 / Coreq: MATH 223
PHYS 491	Astrophysics I: Planetary Astronomy	3	Coreq: PHYS 351 or CHEM 322
PHYS 492	Astrophysics II: Stellar Astronomy	3	Coreq: PHYS 351 or CHEM 322
PHYS 493	Astrophysics II: Extragalactic	3	PHYS 351 or CHEM 322
PHYS 495	Independent Study	3	Perm. of Instr.
PHYS 496	Independent Study	3	Perm. of Instr.
ASTR 495	Independent Study	3	Perm. of Dept.
ASTR 496	Independent Study	3	Perm. of Dept.