**2014-2015**

**Pathways Four-Year Plan: Physics (BS)**

Department of Earth and Physical Science

School of Arts & Sciences | York College | CUNY

Academic Core 2F09 | 718-262-2654

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

The goal of a Four-Year Plan is to ensure that students graduate with no more than 120 credits and in four 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.

|  | Credit |  | Credit |
| --- | --- | --- | --- |
| **FIRST YEAR - FALL** | **15** | **FIRST YEAR - SPRING** | **15** |
| English Composition (EC): ENGL 125 | 3 | English Composition (EC): ENGL 126 | 3 |
| Mathematical & Quantitative Reasoning (MQR): MATH 121 | 4 | MATH 122 | 4 |
| Life & Physical Science (LPS): PHSY 113 + 117 | 5 | Scientific World (SW): PHYS 114 + PHYS 118 | 5 |
| US Experience in its Diversity (USED) | 3 | World Culture & Global Issues (WCGI) | 3 |

|  | Credit |  | Credit |
| --- | --- | --- | --- |
| **SECOND YEAR - FALL** | **15** | **SECOND YEAR - SPRING** | **14** |
| College Option: Foreign Language † | 3 | College Option: Foreign Language † | 3 |
| Additional Flexible Core Course:  CHEM 108 + CHEM 109 (SW) | 5 | Creative Expression (CE) | 3 |
| MATH 221 | 4 | CHEM 111 + CHEM 112 | 5 |
| PHYS 241 | 3 | PHYS 211 | 3 |

|  | Credit |  | Credit |
| --- | --- | --- | --- |
| **THIRD YEAR - FALL** | **15** | **THIRD YEAR - SPRING** | **15** |
| College Option: HE 111 | 3 | College Option: Writing Requirement:  PHYS 383 WI | 3 |
| Individual & Society (IS) | 3 | PHYS 321 | 3 |
| PHYS 351 | 3 | Free Elective | 3 |
| MATH 223 | 3 | Free Elective | 3 |
| Free Elective | 3 | Free Elective | 3 |

|  | Credit |  | Credit |
| --- | --- | --- | --- |
| **FOURTH YEAR - FALL** | **16** | **FOURTH YEAR - SPRING** | **15** |
| Writing Intensive (WI) | 3 | Writing Intensive (WI) | 3 |
| PHYS 431 | 3 | PHYS 441 | 3 |
| MATH 333 | 4 | PHYS/ASTR Elective (400-level or higher)\* | 3 |
| PHYS/ASTR Elective (400-level or higher)\* | 3 | Free Elective | 3 |
| Free Elective | 3 | Free Elective | 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 credit for General Education requirements, you must still complete one (1) WI course in the upper division 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 Four-Year Plan.

†Foreign language courses are determined through placement by the Foreign Language Department, AC-3C08

**Notes on Physics Major Requirements**

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

| **Course** | **Title** | **Credit** | **Prerequisite** |
| --- | --- | --- | --- |
| PHY 412 | Mechanics II | 3 | PHYS 211 / Coreq: MATH 223 |
| PHY 422 | Electricity and Magnetism II | 3 | PHYS 321 |
| PHY 442 | Nuclear and Particles Physics | 3 | PHYS 241 or CHEM 322 / Coreq: PHYS 321 |
| PHY 461 | Solid State Physics | 3 | PHYS 351 / Coreq: MATH 223 |
| PHY 491 | Astrophysics I: Planetary Astronomy | 3 | Coreq: PHYS 351 or CHEM 322 |
| PHY 492 | Astrophysics II: Stellar Astronomy | 3 | Coreq: PHYS 351 or CHEM 322 |
| PHY 493 | Astrophysics II: Extragalactic | 3 | PHYS 351 or CHEM 322 |
| PHY 495 | Independent Study | 3 | Perm. of Instr. |
| PHY 496 | Independent Study | 3 | Perm. of Instr. |
| ASTR 495 | Independent Study | 3 | Perm. of Dept. |
| ASTR 496 | Independent Study | 3 | Perm. of Dept. |