

**Physical Science, Physics B. S. Program
Program Planning and Check-off Sheet**

Student Name: _____

Advisor Name: _____ Date: _____

General Education **38 sh**
Communications **6 sh**

Sem/Yr	Grade	Course	Course #	Credits
		College Composition I	COMP 01.111	3
		College Composition II	COMP 01.112	3

Science and Mathematics **11 sh**

Sem/Yr	Grade	Course	Course #	Credits
		Calculus I—MATH	MATH 01.130	4
		Geology I—LAB	GEOG 06.130	4
		Intro. Sci. Prog. <i>or</i> Comp. Sci. & Prog.	CS 01.104 <i>or</i> CS 04.103	3

Social and Behavioral Sciences **6 sh**

Sem/Yr	Grade	Course	Course #	Credits

History, Humanities, and Languages **6 sh**

Sem/Yr	Grade	Course	Course #	Credits
		Phil of Science—WI, M/G (or other approved):	PHIL 09.369	3

Non-Program Courses (outside PHSC, PHYS, CHEM) **9 sh**

Sem/Yr	Grade	Course	Course #	Credits

Rowan Experience **≥6 sh**

Sem/Yr	Grade	Course	Course #	Credits
		Public Speaking—PS	CMS 06.202	3
		ACE course:		3

RS _____ MATH _____ LAB _____ WI _____ M/G _____ LIT _____

Major Requirements**60–64 sh****Physical Science Core****45–48 sh**

Sem/Yr	Grade	Course	Course #	Credits
		Calculus II	MATH 01.131	4
		Introductory Mechanics—RS	PHYS 00.220	4
		Introductory Thermo, Fluids, Waves & Optics	PHYS 00.221	4
		Introductory Electricity & Magnetism	PHYS 00.222	4
		Modern Physics	PHYS 00.300	4
		Approved Astr, Atm Sci, Geol course:		3–4*
		Chemistry I	CHEM 06.100	4
		Chemistry II	CHEM 06.101	4
		Organic Chemistry I	CHEM 07.200	4
		Quantitative Analysis	CHEM 09.250	4
		Approved Career Track course:		3–4*
		Approved Career Track course:		3–4*

Physics Specialization**14–16 sh**

Sem/Yr	Grade	Course	Course #	Credits
		Astronomy and Astrophysics	ASTR 11.230	4
		An approved 300+ level Physics:		4
		An approved 300+ level Physics:		3–4*
		An approved Physics Elective:		3–4*

*At least one of these courses must be 4sh to meet the 60sh requirement for the B.S. degree.

Free Electives**12–16 sh**

Sem/Yr	Grade	Course	Course #	Credits

Total Credits Needed**120 sh**

A Possible Physical Science: Physics Major Program

Freshman Year

Fall	15 s.h.	Spring	15 s.h.
College Composition I [COM*]	3	College Composition II [COM*]	3
Calculus I—MATH [SM*]	4	Calculus II	4
Intro Mechanics—RS	4	Intro TFW&O	4
Chemistry I—LAB [SM*]	4	Chemistry II [SM*]	4

Sophomore Year

Fall	17 s.h.	Spring	17 s.h.
Public Speaking—PS	3	Philosophy of Science—WI [HHL*]	3
Astronomy & Astrophysics	4	Geology I—LAB	4
Intro E&M	4	Modern Physics	4
Programming course [SM*]	3	RE Elective—ACE	3
Gen Ed Elective [NPC*]	3	Free Elective	3

Junior Year

Fall	13–14 s.h.	Spring	16–17 s.h.
Organic Chemistry I	4	Quantitative Analysis	4
Career Track Course	3–4	Career Track Course	3–4
GE/RE Elective—LIT [HHL*]	3	GE Elective [SBS*]	3
Free Elective	3	Free Elective	3
		Free Elective	3

Senior Year

Fall	13–14 s.h.	Spring	12–14 s.h.
300+ level Physics	4	300+ level Physics	3–4
Astr <i>or</i> Atm Sci <i>or</i> Geology	3–4	Physics Elective	3–4
Gen Ed Elective [SBS*]	3	Gen Ed Elective [NPC*]	3
Gen Ed Elective [NPC*]	3	Free Elective	3

*General Education requirements are 6 semester hours in Communication (COM), 15 semester hours in Science & Mathematics (SM) 6 semester hours in Social & Behavioral Science (SBS), 6 semester hours in History, Humanities and Languages (HHL), and 6 semester hours in Non-Program Courses (NPC).

Rowan Experience requirements include 3 semester hours in Public Speaking (PS) and Artistic and Creative Experience (ACE) each, as well as at least one course each designated as Literature (LIT), Multi-cultural/Global (M/G), Writing Intensive (WI), Rowan Seminar (RS), Math (MATH), and Lab Science (LAB); the latter five requirements are accounted for in Program Requirements.

Note that electives, GE and RE courses may be taken at any time, the above specified courses are for illustration only.

Approved Astr, Atm Sci, Geol Courses

- Any ASTR 11 course not already required by the major
- Any ASTR 13 course
- Any ASTR 17 course
- Introduction to Geography and Earth Studies (GEOG 06.100)
- Geology I (GEOG 06.103)
- Geology II (GEOG 06.104)
- Investigations in Physical Geography (GEOG 06.110)
- Climatology (GEOG 06.305)
- Geomorphology (GEOG 06.325)
- The Geoscience of Natural Disasters (GEOG 06.326)
- Geology of the National Parks (GEOG 06.450)

Approved Physics Elective Courses

Any PHYS 00 course not already required by the major

Career Tracks

Choose any 6–8 sh of courses from the appropriate track

- Secondary Education—second major in Education: K–12 Subject Matter
 - Teaching & Learning A w/ Practicum (SMED 34.330/SECD 03.330)
 - Teaching & Learning B w/ Practicum (SMED 34.331/SECD 03.332)
- Environmental Science—Any courses used to fulfill the concentration offered through Biology and not already required by the Physical Science major
- Marketing/Technical Representative—minor or second major in Business
 - Introduction to Economics—Macroeconomic Perspective (ECON 04.101)
 - Introduction to Economics—Microeconomic Perspective (ECON 04.102)
 - Statistics I (STAT 02.260)
- Pre-Med—any courses required by the Pre-Medical concentration or the BS in Nursing offered through Biology and not already required by the Physical Science major
- Pre-Law—any courses required by the Minor in Law & Justice Studies or the Minor in Political Science (both have pre-law tracks)
- Technical Writing Track—any courses required by the Minor in Journalism