GENERAL SCIENCE MAJOR

Requirements

The general science major consists of a total of 13 courses, plus associated labs and recitations.

Course	Title	Credits
Chemistry		
CHEM 1321 & CHEM 1331	General Chemistry I and General Chemistry Lab I	6
CHEM 1322 & CHEM 1332	General Chemistry II and General Chemistry Lab II	6
CHEM 1311	General Chemistry I Recitation	0
CHEM 1312	General Chemistry II Recitation	0
Biology		
BISC 1403 & BISC 1413	Introductory Biology I and Introductory Biology Lab I	5
BISC 1404 & BISC 1414	Introductory Biology II and Introductory Biology Lab II	5
Physics		
Select one of the following options (provided prerequisites are met):		*8 to 10*
Option 1:		
PHYS 1701 & PHYS 1511	Physics I and Physics I Lab	
PHYS 1702 & PHYS 1512	Physics II and Physics II Lab	
Option 2:		
PHYS 1601 & PHYS 1511	Introduction to Physics I and Physics I Lab	
PHYS 1602 & PHYS 1512	Introduction to Physics II and Physics II Lab	
Option 3:		
PHYS 1501 & PHYS 1511	General Physics I and Physics I Lab	
PHYS 1502 & PHYS 1512	General Physics II and Physics II Lab	
Mathematics[1]		
Select both courses in one of the following options:		*6 to 10*
Option 1:		
MATH 1206	Calculus I	
MATH 1207	Calculus II	
Option 2:		
MATH 1203	Applied Calculus I	
MATH 1204	Applied Calculus II	
Option 3:		
MATH 1203	Applied Calculus I	
MATH 1205	Applied Statistics[2]	
Option 4:		
MATH 1206	Calculus I	
MATH 1205	Applied Statistics[2]	
Computer Science		
CISC 1400	Discrete Structures[3]	4
CISC 1600 & CISC 1610	Computer Science I and Computer Science I Lab[4]	4
Electives[5]		
Select two advanced courses in one subject (biology, chemistry and biochemistry, or physics), plus required lab corequisites, as applicable; see below lists		
One additional advanced course in any of three subjects, plus required lab corequisites, as applicable; see below lists		

1 Students with a demonstrated proficiency in either computer science or statistics can inquire with the program director for alternative choices. MATH 1203 Applied Calculus I or MATH 1206 Calculus I may be fulfilled with transfer credit from AP Calculus (MATH 12AB or MATH 12BC).

2 In consultation with the General Science program director, the following statistics courses may also fulfill this requirement. Other options, with program director approval, may be considered.

- ECON 2140 Statistics I
- PSYC 2000 Statistics
- SOCI 2606 Social Science Statistics

3 In consultation with the General Science program director, CISC 1100 Structures of Computer Science may fulfill this requirement.

4 Students who take CISC 1600 during Fordham's Summer Session do not take CISC 1610, as the summer lecture and lab are offered in a combined format.

5 Each student must take three elective non-core science courses (biology, chemistry and biochemistry, or physics), including any associated labs.

At least two of the elective courses must be in the same discipline; the third can be in any of the three disciplines (biology, chemistry and biochemistry, or physics). These courses must be offered by the biological sciences, chemistry and biochemistry, or physics departments and be advanced enough that one of the following courses, respectively, is a prerequisite:

- CHEM 1322 General Chemistry II
- BISC 1404 Introductory Biology II
- PHYS 1502 General Physics II/PHYS 1602 Introduction to Physics II/PHYS 1702 Physics II

Additionally, a maximum of one independent study in biological sciences (BISC 4999 or BISC 4792), chemistry and biochemistry (CHEM 4999) or physics (PHYS 4999), of at least three credits, may count towards the three course elective requirement.

Advanced Biology Electives

Courses in this group have the GEAB attribute.

Course	Title	Credits
BISC 2539	General Genetics	3
BISC 2561	Ecology	3
BISC 2571	Ecology Lab	2
BISC 3132	Human Physiology	3
BISC 3221	Human Anatomy	3
BISC 3244	Evolutionary Biology	3
BISC 3405	Plant Biology	3
BISC 3521	Biochemistry	3

BISC 3643	Microbiology	3
BISC 3752	Molecular Biology	3
BISC 3754	Cell Biology	3
BISC 3893	Introduction to Virology	3
BISC 4530	Cancer Biology and Signaling	3
BISC 4532	Neuroscience	3
BISC 4642	Animal Behavior	4
BISC 4693	Developmental Biology	3
BISC 4792	Senior Thesis Research	4

Advanced Chemistry Electives

Courses in this group have the GEAC attribute.

Course	Title	Credits
CHEM 2521	Organic Chemistry I	4
CHEM 2522	Organic Chemistry II	4
CHEM 3621	Physical Chemistry I	4
CHEM 3622	Physical Chemistry II	4
CHEM 3721	Quantitative Analysis	4
CHEM 3722	Instrumental Analysis	4
CHEM 4221	Biochemistry I	3
CHEM 4222	Biochemistry II	3
CHEM 4241	Biomimetic Chemistry	3
CHEM 4251	Physical and Computational Models of Biochemical Systems	3
CHEM 4340	Environmental Chemistry	3

Advanced Physics Electives

Courses in this group have the GEAP attribute.

Course	Title	Credits
PHYS 2005	Introduction to Modern Physics	4
PHYS 2101	Engineering Statics and Dynamics	4
PHYS 2102	Mechanics of Materials	4
PHYS 2201	Classical Mechanics I	4
PHYS 3001	Electricity and Magnetism I	4
PHYS 3002	Electricity and Magnetism II	4
PHYS 3100	Math Methods in Physics	4
PHYS 3102	Math Methods in Physics II	4
PHYS 3103	Math Methods in Physics III	4
PHYS 3201	Fluid Mechanics	4
PHYS 3401	Thermo and Stat Physics	4
PHYS 3601	Optics	4
PHYS 4003	Classical Mechanics II	4
PHYS 4005	Quantum Mechanics I	4
PHYS 4006	Quantum Mechanics II	4
PHYS 4010	Introduction to Electric Circuits	4
PHYS 4012	Solid State Physics	4

Availability

The major in general science is available at Fordham College at Rose Hill. Students in Fordham's School of Professional and Continuing Studies may major in general science only if they receive the approval of their advising dean and/or department, and their schedules are sufficiently flexible to permit them to take day courses at the Rose Hill campus.

Fordham College at Rose Hill students: The requirements above are in addition to those of the Core Curriculum.

Professional and Continuing Studies students: The requirements above are in addition to those of the PCS Core Curriculum *and any additional electives that may be required to earn a minimum of 124 credits.*

CIP Code

30.0101 - Biological and Physical Sciences.

You can use the CIP code to learn more about career paths associated with this field of study and, for international students, possible post-graduation visa extensions. Learn more about CIP codes and other information resources.