

BACHELOR OF SCIENCE IN BIOLOGY

The undergraduate biology degree at Illinois Institute of Technology provides excellent preparation for the health professions, including medicine, osteopathic medicine, and dentistry. In addition, the rigorous program prepares graduates for careers in biotechnology, biochemistry, patent law, and environmental science. Graduates are also prepared for immediate entry into positions in industrial, medical, and other research laboratories and for graduate programs in biotechnology, cell biology, biochemistry, genetics, and molecular biology.

The objectives of the university's biology major are to give students strong training in the areas of modern cell biology, genetics, biochemistry, microbiology, and physiology, supported by a solid foundation in mathematics and the physical sciences. In addition, the biology major is designed to give students broad opportunities to study advanced topics in biology, both in the classroom and by participating in undergraduate research projects.

Required Courses

Code	Title	Credit Hours
Biology Requirements		(34)
BIOL 100	Introduction to the Profession	2
BIOL 107	General Biology Lectures	3
BIOL 109	General Biology Laboratory	1
BIOL 115	Human Biology	3
BIOL 117	Human Biology Laboratory	1
BIOL 210	Microbiology	3
BIOL 214	Genetics	3
BIOL 225	Microbiology Laboratory	2
BIOL 401	Introductory Biochemistry	3
BIOL 402	Metabolic Biochemistry	3
BIOL 430	Human Physiology	3
BIOL 445	Cell Biology	3
BIOL 451	Biological Literature	2
BIOL 495	Biology Colloquium	1
BIOL 495	Biology Colloquium	1
Senior Biology Laboratory Requirements		(6)
Select two courses from the following:		6
BIOL 404	Biochemistry Laboratory	3
BIOL 431	Animal Physiology Laboratory	3
BIOL 446	Cell Biology Laboratory	3
BIOL 455	Macromolecular Techniques	3
Technical Electives		(12)
Select 12 credit hours		12
Mathematics Requirements		(13)
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 425	Statistical Methods	3
Chemistry Requirements		(18)
CHEM 124	Principles of Chemistry I with Laboratory	4
CHEM 125	Principles of Chemistry II with Laboratory	4
CHEM 237	Organic Chemistry I	4
CHEM 239	Organic Chemistry II	3
CHEM 247	Analytical Chemistry	3
Physics Requirements		(11)
PHYS 123	General Physics I: Mechanics	4
PHYS 221	General Physics II: Electricity and Magnetism	4
PHYS 224	General Physics III for Engineers	3
Computer Science Requirement		(2)

CS 105	Introduction to Computer Programming	2
or CS 110	Computing Principles	
Interprofessional Projects		(6)
See Illinois Tech Core Curriculum, section E		6
Humanities and Social Science Requirements		(21)
See Illinois Tech Core Curriculum, sections B and C		21
Free Elective		(3)
Select three credit hours		3
Total Credit Hours		126

Bachelor of Science in Biology Curriculum

		Year 1	
Semester 1	Credit Hours	Semester 2	Credit Hours
BIOL 100	2	BIOL 115	3
BIOL 107	3	BIOL 117	1
BIOL 109	1	CHEM 125	4
CHEM 124	4	MATH 152	5
MATH 151	5	Humanities 200-level Course	3
15		16	
		Year 2	
Semester 1	Credit Hours	Semester 2	Credit Hours
BIOL 214	3	BIOL 210	3
CHEM 237	4	BIOL 225	2
PHYS 123	4	CHEM 239	3
Social Sciences Elective	3	PHYS 221	4
Humanities or Social Sciences Elective	3	Humanities Elective (300+)	3
17		15	
		Year 3	
Semester 1	Credit Hours	Semester 2	Credit Hours
BIOL 401	3	BIOL 402	3
Senior Biology Laboratory Elective ¹	3	BIOL 430	3
CHEM 247	3	I PRO Elective I	3
PHYS 224	3	CS 105 or 110	2
Social Sciences Elective (300+)	3	MATH 425	3
		Humanities Elective (300+)	3
15		17	
		Year 4	
Semester 1	Credit Hours	Semester 2	Credit Hours
BIOL 445	3	BIOL 451	2
BIOL 495	1	BIOL 495	1
Senior Biology Laboratory Elective ¹	3	I PRO Elective II	3
Technical Elective	3	Technical Elective	3
Technical Elective	3	Technical Elective	3
Free Elective	3	Social Sciences Elective (300+)	3
16		15	
Total Credit Hours: 126			

¹ Choose from the following courses: BIOL 404, BIOL 431, BIOL 446, or BIOL 455.