

BIOTECHNOLOGY (B.S.) - RESIDENT

Important: This degree plan is effective for those starting this degree program in fall 2023 through summer 2024. This degree plan will remain in effect for students who do not break enrollment or who do not change degree programs, concentrations, or cognates.

General Education/Foundational Skills Requirements

Code	Title	Hours
Communication & Information Literacy ¹		
ENGL 101	Composition and Rhetoric	3
INQR 101	Inquiry	1
Communications Elective		3
Information Literacy Elective		3
Information Literacy Elective		3
Technological Solutions & Quantitative Reasoning ¹		
UNIV 101	Foundational Skills	1
Math Elective	MATH 114 or higher	3
Technology Competency ²		0-3
Critical Thinking ¹		
RLGN 105	Introduction to Biblical Worldview ³	2
RSCH 201	Research	3
Critical Thinking Elective		3
Civic & Global Engagement ¹		
EVAN 101	Evangelism and the Christian Life ³	2
Cultural Studies Elective		3
Social & Scientific Inquiry ¹		
Natural Science Elective		3
Social Science Elective		3
Christianity & Contexts ¹		
BIBL 105	Old Testament Survey	2
BIBL 110	New Testament Survey	2
THEO 201	Theology Survey I ³	2
THEO 202	Theology Survey II ³	2
Total Hours		44-47

¹ Refer to the list of approved general education electives before enrolling in foundational skill requirements

² All students must pass the Computer Assessment OR complete applicable INFT course

³ Students transferring in 45 or more UG credit hours will have the requirements of RLGN 105 Introduction to Biblical Worldview (2 c.h.) and EVAN 101 Evangelism and the Christian Life (2 c.h.) waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 Theology Survey I (2 c.h.) and THEO 202 Theology Survey II (2 c.h.) waived

Major Requirements

Code	Title	Hours
Major Foundational Courses		
BIOL 224	General Biology I ¹	4
CHEM 121	General Chemistry I ¹	4
or CHEM 131 & CHEM 135	Advanced General Chemistry I and Advanced General Chemistry Lab	
CHEM 122	General Chemistry II ¹	4
or CHEM 132 & CHEM 136	Advanced General Chemistry II and Advanced General Chemistry II Lab	
MATH 126	Elementary Calculus for Business and Science ¹	3-4
or MATH 131	Calculus and Analytic Geometry I	
MATH 201	Introduction to Probability and Statistics ¹	3
or MATH 211	Introduction to Statistical Analysis	
PHYS 201	General Physics I ¹	4
or PHYS 231	University Physics I	
PHYS 202	General Physics II ¹	4
or PHYS 232	University Physics II	
Total Hours		26-27

¹ Course may fulfill select general education requirements.

Code	Title	Hours
Major Core		
BCHM 451	Biochemistry I	4
BIOL 225	General Biology II	4
BIOL 301	Genetics	4
BIOL 303	Microbiology	4
BIOL 400	Biology Seminar	1
BIOL 415	Cell Biology	4
BIOL 455	Molecular Techniques	3
CHEM 301	Organic Chemistry I	4
CHEM 302	Organic Chemistry II	4
CHEM 321	Analytical Chemistry	4
CRST 290	History of Life	3
or CRST 390	Origins	
Elective ¹		4
Elective ¹		4
Total Hours		47

¹ Choose from BCHM 452 Biochemistry II (4 c.h.), BIOL 330 Histology (4 c.h.), BIOL 403 Embryology (4 c.h.), or BIOL 420 Immunology (4 c.h.)

Code	Title	Hours
Free Electives		
Choose 0-10 credit hours of Free Electives		0-10
Total Hours		0-10

All applicable prerequisites must be met

Graduation Requirements

- 120 Total hours
- 2.0 Overall grade point average

- **30 Hours** must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all upper-level courses in the major
- **25%** Of major taken through Liberty University
- **30 Hours** must be completed through Liberty University
- **Grad App** Submission of Degree Completion Application must be completed within the last semester of a student's anticipated graduation date
- **CSER** All requirements must be satisfied before a degree will be awarded

Course Sequence

Course	Title	Hours
First Year		
First Semester		
ENGL 101	Composition and Rhetoric	3
INQR 101	Inquiry	1
UNIV 101	Foundational Skills	1
Natural Science Elective (BIOL 224) ¹		4
MATH 126 or MATH 131	Elementary Calculus for Business and Science or Calculus and Analytic Geometry I	3-4
CHEM Elective(s) ²		4
CSER		0
Hours		16-17
Second Semester		
RLGN 105	Introduction to Biblical Worldview	2
Information Literacy Elective ¹		3
MATH Elective (MATH 201 or MATH 211) ¹		3
BIOL 225	General Biology II	4
CHEM Elective(s) ³		4
CSER		0
Hours		16
Second Year		
First Semester		
RSCH 201	Research	3
Communications Elective ¹		3
Technology Competency ⁴		0-3
BIOL 301	Genetics	4
CHEM 301	Organic Chemistry I	4
CSER		0
Hours		14-17
Second Semester		
THEO 201	Theology Survey I	2
Critical Thinking Elective ¹		3
Information Literacy Elective ¹		3
BIOL 415	Cell Biology	4
CHEM 302	Organic Chemistry II	4
CSER		0
Hours		16
Third Year		
First Semester		
EVAN 101	Evangelism and the Christian Life	2

Course	Title	Hours
PHYS 201 or PHYS 231	General Physics I or University Physics I	4
BCHM 451	Biochemistry I	4
Elective		3
Elective		3
CSER		0
Hours		16
Second Semester		
BIBL 110	New Testament Survey	2
THEO 202	Theology Survey II	2
PHYS 202 or PHYS 232	General Physics II or University Physics II	4
BIOL 303	Microbiology	4
BIOL 400	Biology Seminar	1
BIOL 455	Molecular Techniques	3
CSER		0
Hours		16
Fourth Year		
First Semester		
Social Science Elective ¹		3
CRST 290 or CRST 390	History of Life or Origins	3
Elective ⁵		4
Elective		3
CSER		0
Hours		13
Second Semester		
BIBL 105	Old Testament Survey	2
Cultural Studies Elective ¹		3
CHEM 321	Analytical Chemistry	4
Elective ⁵		4
CSER		0
Hours		13
Total Hours		120-124

¹ Refer to the list of approved general education electives at www.liberty.edu/gened before enrolling in foundational skills requirements

² Choose CHEM 121 OR CHEM 131 and 135

³ Choose CHEM 122 OR CHEM 132 and 136

⁴ All students must pass the Computer Assessment OR complete applicable INFT course; refer to www.liberty.edu/computerassessment for more information

⁵ Choose from BCHM 452, BIOL 330, 403, or 420