BIOCHEMISTRY & MOLECULAR BIOLOGY (B.S.) - RESIDENT

Important: This degree plan is effective for those starting this degree program in fall 2026 through summer 2027. 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
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
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		**40-43**

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 and EVAN 101 waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 and THEO 202 waived

Major Requirements

Code	Title	Hours
Major Foundational Courses		
BIOL 224	General Biology I [1,2]	4
CHEM 121	General Chemistry I [1,2]	4
or CHEM 131 & CHEM 135	Advanced General Chemistry I and Advanced General Chemistry Lab	
CHEM 122	General Chemistry II [1,2]	4
or CHEM 132 & CHEM 136	Advanced General Chemistry II and Advanced General Chemistry II Lab	
MATH 126	Elementary Calculus for Business and Science [1,2]	3-4
or MATH 131	Calculus and Analytic Geometry I	
MATH 201	Introduction to Probability and Statistics [1,2]	3
or MATH 211	Introduction to Statistical Analysis	
PHYS 201	General Physics I [1,2]	4
or PHYS 231	University Physics I	
PHYS 202	General Physics II [1,2]	4
or PHYS 232	University Physics II	
Total Hours		**26-27**

1. Course may fulfill select general education requirements.
2. MATH 131 Calculus and Analytic Geometry I (4 c.h.), MATH 211 Introduction to Statistical Analysis (3 c.h.), PHYS 231 University Physics I (4 c.h.) and PHYS 232 University Physics II (4 c.h.) are strongly recommended

Code	Title	Hours
Major Courses		
BCHM 451	Biochemistry I	4
BCHM 452	Biochemistry II	4
BIOL 225	General Biology II	4
or BIOL 317	Botany	
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
CHEM 461	Physical Chemistry I	3
CHEM 465	Physical Chemistry I Lab	1
CRST 290	History of Life	3
or CRST 390	Origins	
MATH 132	Calculus and Analytic Geometry II	4
BIOL or CHEM Elective [1]		3-4
Total Hours		**54-55**

1. Any 300-400 level BIOL or CHEM course not already applying to the degree

Code	Title	Hours
Free Electives		
Choose 0-7 credit hours of Free Electives		0-7
Total Hours		**0-7**

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

Freshman Year

First Semester		Hours
ENGL 101	Composition and Rhetoric	3
UNIV 101	Foundational Skills	1
Natural Science Elective BIOL 224 [1]		4
CHEM Elective(s) [2]		4
MATH 126 or MATH 131	Elementary Calculus for Business and Science [3] or Calculus and Analytic Geometry I	3-4
CSER		0
	Hours	**15-16**

Second Semester		
RLGN 105	Introduction to Biblical Worldview	2
CHEM Elective(s) [4]		4
Information Literacy Elective [1]		3
BIOL 225 or BIOL 317	General Biology II or Botany	4
MATH 132	Calculus and Analytic Geometry II	4
CSER		0
	Hours	**17**

Sophomore Year

Third Semester		
EVAN 101	Evangelism and the Christian Life	2
MATH Elective MATH 201 or MATH 211 [1,3]		3
BIOL 301	Genetics	4
CHEM 301	Organic Chemistry I	4
Elective		3
CSER		0
	Hours	**16**

Fourth Semester		
Communications Elective [1]		3
Critical Thinking Elective [1]		3
Technology Competency [5]		0-3
BIOL 415	Cell Biology	4
CHEM 302	Organic Chemistry II	4
CSER		0
	Hours	**14-17**

Junior Year

Fifth Semester		
Information Literacy Elective [1]		3
PHYS 201 or PHYS 231	General Physics I [3] or University Physics I	4
BCHM 451	Biochemistry I	4
CHEM 321	Analytical Chemistry	4
CSER		0
	Hours	**15**

Sixth Semester		
THEO 201	Theology Survey I	2
PHYS 202 or PHYS 232	General Physics II [3] or University Physics II	4
BCHM 452	Biochemistry II	4
BIOL 400	Biology Seminar	1
BIOL 455	Molecular Techniques	3
Elective		3
CSER		0
	Hours	**17**

Senior Year

Seventh Semester		
BIBL 110	New Testament Survey	2
THEO 202	Theology Survey II	2
Social Sciences Elective [1]		3
CHEM 461	Physical Chemistry I	3
CHEM 465	Physical Chemistry I Lab	1
CRST 290 or CRST 390	History of Life or Origins	3
CSER		0
	Hours	**14**

Eighth Semester		
BIBL 105	Old Testament Survey	2
Cultural Studies Elective [1]		3
BIOL 303	Microbiology	4
BIOL or CHEM Elective [6]		3-4
CSER		0
	Hours	**12-13**
	Total Hours	**120-125**

1. Refer to the list of approved general education electives before enrolling in foundational skills requirements.
2. Choose CHEM 121 General Chemistry I (4 c.h.) OR CHEM 131 Advanced General Chemistry I (3 c.h.) and CHEM 135 Advanced General Chemistry Lab (1 c.h.).
3. MATH 131 Calculus and Analytic Geometry I (4 c.h.), MATH 211 Introduction to Statistical Analysis (3 c.h.), PHYS 231 University Physics I (4 c.h.) and PHYS 232 University Physics II (4 c.h.) are strongly recommended.
4. Choose CHEM 122 General Chemistry II (4 c.h.) OR CHEM 132 Advanced General Chemistry II (3 c.h.) and CHEM 136 Advanced General Chemistry II Lab (1 c.h.).
5. All students must pass the Computer Assessment OR complete applicable INFT course

[6] Choose from the following: any 300-400 level BIOL or CHEM course not already applying to the degree.