



**A.A.S. in Biotechnology**



2024-25

**B.A. in Biology – Pre-Professional concentration**

MONTGOMERY COLLEGE Requirements for Associate's Degree		UNIVERSITY OF MAINE – FARMINGTON Requirements for Bachelor's Degree	
3	ENGL 101 - Introduction to College Writing*	3	ENG 100 Writing Seminar
3	MATH117 or higher (MATF)	3	MAT 120 Introductory Statistics (or higher)
3	BIOT 110 - Introduction to Biotechnology	3	Biology Elective
2	BIOT 120 - Introduction to Cell Culture	2	Biology Elective
1	BIOT 121 - Aseptic Technique and Cell Culture Skills	1	Biology Elective
4	CHEM 131 - Principles of Chemistry I (GEEL)	4	CHY 141 General Chemistry I
3	ENGL 102 or ENGL103 - Critical Reading, Writing, and Research (in the Work Place) (ENGF)	3	ENG 205 Advanced Writing Seminar
4	BIOL 150 - Principles of Biology I (NSLD)	4	BIO 142 The Living Earth: Cellular Molecular World
3	BIOT 200 - Protein Biotechnology	3	Biology Elective
1	BIOT 201 - Protein Biotechnology Skills	1	Biology Elective
4	BIOL 210 – Microbiology	4	BIO 351 Microbiology ++
3	Arts or Humanities Distribution (ARTD or HUMD)	3	100 or 200-level course in Art, Music, Theater or World Language**
4	BIOL 222 - Principles of Genetics	4	BIO 252 Genetics
1	BIOT 231 - Immunological Methods	1	Biology Pre-professional Elective ++
3	BIOT 230 - Applied Immunology	3	Biology Pre-professional Elective ++
4	CHEM132 – Principles of Chemistry II †	4	CHY 142 General Chemistry II
3	Behavioral and Social Sciences Distribution (BSSD)	3	100 or 200-level course in ANT, ECO, GEO, POS, PSY, SOC
3	BIOT 240 - Principles of Nucleic Acid Methods	3	Biology Pre-professional Elective ++
1	BIOT 241 - Nucleic Acid Methods	1	Biology Pre-professional Elective ++
4	CHEM 150 - Essentials of Organic and Biochemistry	4	CHY 130 General Organic Biochemistry
3	Program Elective	3	Elective
<b>60</b>	<b>TOTAL CREDITS</b>	<b>60</b>	<b>TOTAL CREDITS</b>
<b>REMAINING UMF DEGREE REQUIREMENTS RECOMMENDED SEQUENCE UPON TRANSFER WITH ASSOCIATE'S DEGREE</b>			
	BIO 141 Ecology, Evolution, and Biodiversity		4
	BIO 356 Developmental Biology		4
	BIO 363 Evolutionary Biology		4
	CHY 241 Organic Chemistry I		4
	CHY 242 Organic Chemistry II		4
	PHY 131 Physics I		4
	PHY 132 Physics II		4
	Social Sciences Distribution		3
	Social Sciences Distribution		3
	Arts or Humanities Distribution		3
	General Education Open Electives***		8
	General Electives		15
<b>TOTAL CREDITS REMAINING AT UNIVERSITY OF MAINE – FARMINGTON</b>			<b>60</b>
<b>Total credits from Montgomery College and UMF</b>			<b>120</b>

### MONTGOMERY COLLEGE NOTES

\* ENGL 101/ENGL 101A, if needed for ENGL 102/ENGL 103, or elective.

‡ CHEM 203 (5 semester hours) may be taken instead of CHEM 150.

† Program electives: BIOT 250, BIOT 251, BIOT 260, BIOT 261, CMAP 120, CHEM 132, CHEM 204, PHYS 203, PHYS 233, SCIR 297, MATH Elective, BIOL Elective, COMM 108 or COMM 112, HUMD, BSSD, or ARTD.

### UNIVERSITY OF MAINE – FARMINGTON NOTES

†† UMF will count BIOL 210, BIOT 230-231, and BIOT 240-241 taken at Montgomery College as 12 of the 16 pre-professional elective credits required for the UMF biology degree; the final 4 elective credits will be BIO 356 taken at UMF.

\*\* UMF classifies history within the social sciences, so a history course taken at Montgomery College will count towards UMF's general education requirements in the social sciences rather than in the humanities.

\*\*\* Any course in a discipline other than biology can serve as a general education open elective.

Students must complete a minimum of 120 credits in order to be awarded the UMF degree.

#### Additional Notes:

##### Under Provisions of the Agreement Item #4

For a list of application instructions and checklist: <https://www.umf.maine.edu/admissions-aid/>

##### Under Provisions of the Agreement Item #5

All students in baccalaureate degree programs must earn the following from the University of Maine at Farmington:

- 1) a minimum of 12 of the credits required by their major program(s) at the 200 level or above\*
- 2) a minimum of 30 of the total required credits\*An academic program may require that more than 12 credits of advanced coursework and/or specific coursework, such as a capstone course, be completed at UMF.

##### Under Provisions of the Agreement Item #5

The UMF catalog can be accessed at <https://www.umf.maine.edu/academics/academic-catalogs/>

##### Under Provisions of the Agreement Item #6

The New England Regional (NEBHE) tuition rate is listed at <https://www.umf.maine.edu/merrillcenter/home/student-accounts/tuition-and-fees/>