

**Biotechnology, A.A.S.**

Montgomery College	0-35 credits	Course (Fall/Winter)	Credits	Course (Spring/Summer)	Credits
		BIOL150 - Principles of Biology I	4	BIOT120 - Cell Culture and Cell Function	3
BIOT110 - Intro to Biotechnology	2	BIOT200 - Protein Biotechnology	4		
CHEM131 - Principles of Chemistry I	4	BIOL151 - Principles of Biology II	4		
English Foundation (or ENGL101 if needed)	3	English Foundation (if needed) or ***Foreign Language	3		
*MATH170 or *MATH181	4	CHEM132 - Principles of Chemistry II	4		
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>18</b>		
36-71 credits		Course (Fall/Winter)	Credits	Course (Spring/Summer)	Credits
		BIOL222 - Principles of Genetics	4	PSYC102 or SOCY101 (BSSD) - Summer Recommended	3
BIOT230 - Basic Immunology	4	BIOT240 - Nucleic Acid Methods	4		
CHEM203 - Organic Chemistry I	5	***Foreign Language (or other UMBC Culture GEP)	3		
***Foreign Language (or other ARTD)	3	PHYS203 or PHYS233	4		
**Physical Education	1	**Physical Education	1		
		BIOL210 - Microbiology	4		
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>19</b>		

Articulation Notes:

\* Course can be used to satisfy UMBC major requirements when completed with a "C" or better.

\*\* **Physical Education:** UMBC students must take two physical activity courses in addition to the 120 academic credits required for graduation. Credits earned for physical activity courses are not counted toward the 120 academic credits. Therefore, students may transfer 2 physical activity courses in addition to the 60 transferrable academic credits. Waivers are available for medical reasons, military service, or collegiate athletic participation.

\*\*\* **Foreign Language Requirement:** The language requirement consists of completion of a foreign language through the 201 level or demonstrated proficiency at that level. The proficiency requirement is met by previous experience as follows: 1) completion of level 4 or higher of a language in high school, or 2) corresponding AP, IB or CLEP credit, or 3) completion of a language through the 201 level at a regionally accredited college or university. The Shady Grove Transfer Credit Limit Exception is available to students who earn an associate degree prior to transferring to UMBC at Shady Grove and will permit the transfer of up to 66 credits, instead of the standard 60-credit transfer limit, from a Maryland two-year school to UMBC on the condition that six (6) of the 66 credits are language courses directly applicable toward the 201-level language sequence required as part of the UMBC general education program.

**Translational Life Science Technology, B.S.**

UMBC	Year 3	Fall Semester	Credits	Spring Semester	Credits
		Course		Course	
		BTEC300 - Translational Life Science Technology Survey (W)	3	BTEC310 - Instrumentation & Methods for the Biotechnology	3
		BTEC303 - Applied Cell Biology	4	BTEC344 - Epidemiology	3
		BTEC330 - Software Applications for the Life Sciences	3	BTEC430 - Translational Biochemistry & Molecular Biology	4
		BTEC350 - Statistics for the Life Sciences	4	Arts and Humanities GEP Requirement	3
		***Foreign Language at MC (if needed)	(3)		
		<b>Total</b>	<b>14-17</b>	<b>Total</b>	<b>13</b>
Year 4		Course	Credits	Course	Credits
		BTEC395 - Translational Bioinformatics	4	BTEC462 - Bioprocess Design & Control	4
BTEC444 - Translational Cancer Biotechnology	3	BTEC470 - Advanced Bio-manufacturing	4		
BTEC453 - Biochemical Engineering	4	BTEC495 - Professional Internship / Project-Based Course	3		
BTEC495 - Professional Internship / Project-Based Course	3	Social Science GEP Requirement	3		
Social Science GEP Requirement	3				
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>14</b>		

With questions at Montgomery College, contact Dr. Lori Kelman, lori.kelman@montgomerycollege.edu

With questions at UMBC, contact Dr. Annica Wayman, awayman@umbc.edu