BS, Biology, Cell/Molecular Biology Concentration, 142B
Appalachian State University
College of Arts and Sciences
Department of Biology
Program of Study
2017-2018

		Uni	versal General Educ	ation Transfer Component (UGETC)			
English Composition (6 Se	CH): Complete BOTH English courses						
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ENG 111	Expository Writing	3	None	RC 1000	3	Required	
ENG 112	Argument-Based Research	3	ENG 111	RC 2001	3	Required	
Total Credit Hours Requir	red	6			6		
Humanities/Fine Arts (6 SCH): Select 2 classes from at least two different disciplines							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ART 111	Art Appreciation		None	ART 2011	3		
ART 114	Art History Survey I		None	ART 2030	3		
ART 115	Art History Survey II		None	ART 2130	3		
COM 231	Public Speaking		None	COM 2105	3		
ENG 231	American Literature I		ENG 111, 112, OR 114	ENG 2350	3		
ENG 232	American Literature II	3	ENG 111, 112, OR 114	ENG 2350	3		
ENG 241	British Literature I	3	ENG 111, 112, OR 114	ENG 2050	3		
ENG 242	British Literature II		ENG 111, 112, OR 114	ENG 2050	3		
MUS 110	Music Appreciation		None	MUS 2011	3		
MUS 112	Introduction to Jazz		None	MUS 2014	2		
PHI 215	Philosophical Issues		ENG 111	PHL Elective	3		
PHI 215 PHI 240	Introduction to Ethics		ENG 111	PHL 2000	3		
Total Credit Hours Requi		6		F11E 2000	6		l
		-			-		
	te (6 SCH): Select 2 classes from at least two different disciplines				T		
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ECO 251	Principles of Microeconomics		None	ECO 2030	3		
ECO 252	Principles of Macroeconomics		None	ECO 2040	3		
HIS 111	World Civilizations I		None	HIS 1101	3		
HIS 112	World Civilizations II		None	HIS 1102	3		
HIS 131	American History I	3	None	HIS 1200	3		
HIS 132	American History II	3	None	HIS 1200	3		
PSY 150	General Psychology	3	None	PSY 1200	3		
POL 120	American Government	3	None	PLS 1100	3		
SOC 210	Introduction to Sociology	3	None	SOC 1000	3		
Total Credit Hours Requi	red	6		•	6		
Mathematics (8 SCH): Se	elect 2 courses						
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
MAT 171	Precalculus Algebra	4	None	MAT 1020	4		MAT 171 & 172 (MAT 1025) may need to be taken as
MAT 172	Precalculus Trigonometry	4	MAT 171	MAT 1025	4		prerequisites for MAT 271 (MAT 1110, which is required for major)
MATH 263	Brief Calculus		MAT 171	MAT 1035	4		major /
MATH 271	Calculus I		MAT 172	MAT 1110	4	Required	Required Cognate Course - See Program of Study
MAT 272	Calculus II		MAT 271	MAT 1120	4	Required	Required Cognate Course - See Program or Study
Total Credit Hours Requi		8		IWAT 1120	8		
Natural Sciences (8 SCH):			1	11.1	0	B	
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required <u>or</u> Preferred by Major	Notes
AST 151/151A	General Astronomy I and Lab I	ļ <u> </u>	None	AST 1001	4		
BIO 110	Principles of Biology		None	BIO 1201 & BIO 1204	4	Description 1	
BIO 111	General Biology I		None	BIO 1801	4	Required	Required Cognate Course - See Program of Study
BIO 112	General Biology II		BIO 111	BIO 1802	4	Required	Required Cognate Course - See Program of Study
CHM 151	General Chemistry I		None	CHE 1101 & CHE 1110	4	Required	Required Cognate Course - See Program of Study
CHM 152	General Chemistry II		CHM 151	CHE 1102 & CHE 1120	4	Required	Required Cognate Course - See Program of Study
GEL 111	Introduction to Geology		None	GLY 1101	4		
PHY 110/110A	Conceptual Physics and Lab		None	PHY 1100	4		
PHY 151	College Physics I		MAT 171	PHY 1103	4	Required	Required Cognate Course - See Program of Study
PHY 152	College Physics II		PHY 151	PHY 1104	4	Required	Required Cognate Course - See Program of Study
PHY 251	General Physics I		MAT 271	PHY 1150	4		
PHY 252	General Physics II	4	MAT 272 <u>and</u> PHY 251	PHY 1151	4		
Total Credit Hours Required 8 8							

Total UGETC Hours 34 34

	Additional General Education Courses (13-14 SHC)							
Prefix	Course Name	<b>Credit Hours</b>	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes	
BIO/CHM/PHY not taken previously		4			4	UGETC/GEC	Required Cognate Course - See Program of Study	
BIO/CHM/PHY not taken previously		4			4	UGETC/GEC	Required Cognate Course - See Program of Study	
ACA 122	Colelge Transfer Succes	1			1	GEC	required by CAA	
UGETC/GEC		3			3	UGETC/GEC		
Total Credit Hours Required		12		·	12	-	•	

Total General Education Hours Required

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Other REQUIRED HOURS (15-16 SHC)							
Prefix	Course Name	<b>Credit Hours</b>	Pre-requisites	University Course Equivalent	<b>Credit Hours</b>	Category	Notes
MAT 152	Statistical Methods I	4	None	STT 2820	4	Pre-Major	Required Cognate Course - See Program of Study
BIO/CHM/PHY not taken previously		4			4	Pre-Major	Required Cognate Course - See Program of Study
BIO/CHM/PHY not taken previously		4			4	Pre-Major	Required Cognate Course - See Program of Study
Pre-Major/Elective		3			3	Elective	

Other Required Hours (15-16 SCH)

Total Semester Credit Hours in Program: 61

15 **61** 

Notes

BIO 250, Genetics: Depending on course availability, this course could be taken to transfer as BIO 2400; however, this course will need to be petitioned for credit. Students are encouraged to contact the Office of Transfer Services, prior to registration, to investigate class transferability.

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BIO 265, Cell Biology: Depending on course availability, this course could be taken to transfer as BIO 2600 & 2610 (lecture and lab). Refer to the Program of Study for more information on concentration requirements.

3th -4th Year	Plan BS, Biology, Cell/Molecular Biology			
Semester	Course	Hours	Notes	
5	BIO 2400 or BIO 2700 Genetics	3	Major Requirement	
5	CHE 2201 & 2203 Organic Chemistry I & Lab	4	Major Requirement	
5	BIO 2012 Intro to Evolutionary Biology	3	Major Requirement	
5	BIO 2600 Cell Biology	3	Major Requirement	
5	BIO 2410 or 2610 Lab	1	Major Requirement	14
6	CHE 2202 & 2204 Organic Chemistry II & Lab	4	Major Requirement	
6	BIO 3301 or 3314 or 4555	4	Major Requirement	
6	BIO Cell/Subcell or Ant & Phys Elective	3-4	See Program of Study	
6	BIO Evol/Ecology or Biodiversity Elective	3-4	See Program of Study	
6	Free Elective	3		17-19
7	CHE 4580 Biochemistry I	3	Major Requirement	
7	BIO Cell/Subcell or Ant & Phys Elective	3-4	See Program of Study	
7	BIO Cell/Subcell or Ant & Phys Elective	3-4	See Program of Study	
7	BIO 3800 Molecular Biology	3	Writing in the Discipline [WID]	
7	Free Elective	3		16-18
8	BIO Cell/Subcell or Ant & Phys Elective	3-4	See Program of Study	
8	BIO 4501 or 4700 or 4910 or BIO 4519	3	CAPSTONE	
8	Free Elective	3	Take enough Free Electives to reach 128 hours required for	
8	Free Elective	3	the degree	
8	Free Elective	3	tile degree	15-16
		_		67
				61 transfer hours
			_	128 hours for graduation

## Notes:

- A minor in chemistry can be completed by adding CHE 4581.
- Due to course sequencing and availability, students may require 2.5 years to complete this degree.

## Residency Requirements:

- 32 hours must be taken at Appalachian
- 18 hours in the major must be from Appalachian
- 9 hours in the minor must be from Appalachian
- 50 hours must be completed at a 4-year university