BS, Mathematics, Statistics, 260H Appalachian State University College of Arts and Sciences Department of Mathematical Sciences Program of Study 2016-2017

2016-2017		Uni	versal Gener	al Education Transfer Component (UGET	C)				
English Composition (6 SCH)  The following two English composition courses are required.									
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes		
ENG 111	Expository Writing		None	RC 1000	3	Required	Notes		
ENG 112	Argument-Based Research		NG 111	RC 2001	3				
Total Credit Hours Requir	0	6			6				
Humanities/Fine Arts (6 S									
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	3 1	None	ART 2130	3				
COM 231	Public Speaking		None	COM 2101	3				
ENG 231	American Literature I	3 1	NG 112, 113 or 114	ENG 2350	3				
ENG 232	American Literature II		NG 112, 113 or 114	ENG 2350	3				
ENG 241	British Literature I		NG 112, 113 or 114	ENG 2050					
ENG 242	British Literature II		NG 112, 113 or 114	ENG 2050					
MUS 110	Music Appreciation		None	MUS 2011	3				
MUS 112	Introduction to Jazz		None	MUS 2014	3				
PHI 215	Philosophical Issues		NG 111	PHL Elective	3				
PHI 240	Introduction to Ethics	3 1	NG 111	PHL 2000	3				
Total Credit Hours Requir	ed	6			9				
Social /Behavioral Science	(c ccn)			Charles will release the resource from at least time different distinctions.	_				
Prefix	Course Name	Credit Hours	Pre-requisites	Students will select two courses from at least two different disciplines:  University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes		
ECO 251	Principles of Microeconomics		None	ECO 2030	2	Required of Preferred by Wajor	Notes		
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		None	HIS 1200	3				
HIS 132	American History II		None	HIS 1200	3				
PSY 150	General Psychology		None	PSY 1200	3				
POL 120	American Government		None	P S 1100	3				
SOC 210	Introduction to Sociology		None	SOC 1000	3				
Total Credit Hours Requir		6	10110	500 1000	6	l .			
Mathematics (8 SCH)			B	Students will select two course from the following:		I a to do a sufficient to a state of	I No.		
Prefix MAT 171	Course Name	Credit Hours	Pre-requisites	University Course Equivalent  MAT 1020	Credit Hours	Required or Preferred by Major	Notes		
	Precalculus Algebra		None MAT 171		4				
MAT 172	Precalculus Trigonometry			MAT 1025					
MAT 263	Brief Calculus		MAT 171	MAT 1035	4	December 4			
MAT 271 MAT 272	Calculus I Calculus II		MAT 172 MAT 271	MAT 1110 MAT 1120	4				
Total Credit Hours Requir		8	VIAT 2/1	WAT 1120	8				
	cu	8			8				
Natural Sciences (8 SCH)	Comp. No.			Students will select 8 SCH from the following courses:	La contrata	Danisad as Dadawad by Addis	N-1		
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		None	AST 1001	4				
BIO 110	Principles of Biology		None	BIO 1201/BIO 1204			annet take bath DIO 111 and DIO 112		
BIO 111	General Biology I		None	BIO 1201/BIO 1204	4		must take both BIO 111 and BIO 112		
BIO 112	General Biology II		310 111	BIO 1202/BIO 1205	4		must take both BIO 111 and BIO 112		
CHM 151	General Chemistry I		None	CHE 1101/CHE 1110	4		must take both CHM 151 and CHM 152		
CHM 152	General Chemistry II		CHM 151	CHE 1102/CHE 1120	4		must take both CHM 151 and CHM 152		
GEL 111	Introduction Geology		None	GLY 1101	4				
PHY 110/110A	Conceptual Physics and Lab		None	PHY 1100	4		must take course with lab		
PHY 151	College Physics I		MAT 171	PHY 1103	4		must take PHY 151 and PHY 152		
PHY 152	College Physics II		PHY 151	PHY 1104	4		must take PHY 151 and PHY 152		
PHY 251	General Physics I		MAT 271	PHY 1150	4		must take PHY 251 and PHY 252		
PHY 252	General Physics II		MAT 272 <u>and</u> PHY 251	PHY 1151	4		must take PHY 251 and PHY 252		
Total Credit Hours Requir	ea	8			8				

Total UGETC Hours 34 34

	Additional General Education Courses (11-12 SHC): These courses must be classified as UGETC or general education within the CAA.							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes	
UGETC/GEC		3			3	UGETC/GEC		
UGETC/GEC		3			3	UGETC/GEC		
UGETC/GEC		3			3	UGETC/GEC		
UGETC/GEC		3			3	UGETC/GEC		
Total Credit Hours Require	ed	12			12			

**Total General Education Hours Required** 

46

46

Other REQUIRED HOURS (14-15 SHC): These courses must be classified as pre-major, elective or general education within the CAA.							
Prefix	Course Name	<b>Credit Hours</b>	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes
ACA 122	College Transfer Success	1	None		1	GEC	required by CAA
MAT 273	Calculus III	4	MAT 272	MAT 2130	4	GEC	Required by major
MAT 280	Linear Algebra	3	MAT 271	MAT 2240	3	Pre-Major	Required by major
MAT 285	Differential equations	3	MAT 272	MAT 3130	3	Pre-Major	Required by major
Pre-Major/GEC/Elective		3			3	Pre-Major/GEC/Elective	

Other Required Hours (15-16 SCH)

14

14

## Total Semester Credit Hours in Program: 60

3rd - 4th Year	r Plan: Mathematics, Statistics			
Semester	Course	Hours	Notes	
SU	MAT 2130 Calculus III	4	If taken at community college, start coursework in the fall	1
SU	MAT 2240 Linear Algebra	3	If taken at community college, start coursework in the fall	
SU	MAT 3130 Differential Equations	3	If taken at community college, start coursework in the fall	10
5	MAT 2110 Techniques of Proofs	3	Major Requirement	
5	MAT 2310 Computational Mathematics	3	Writing in the Discipline	
5	STT 3850 Statistical Data Analysis I	4	Major Requirement	
5	STT Elective Course 1	3	Major Requirement	
5	Free Elective	3		16
6	MAT 3220 Intro to Real Analysis	3	Major Requirement	
6	STT 3851 Statistical Data Analysis II	3	Major Requirement	
6	MAT 4310 Numerical Methods	3	Major Requirement	
6	Approved MAT or STT (4000 level) Elective 1	3	Major Requirement	
6	Free Elective	3	Major Requirement	15
7	STT Elective Course 2	3	Major Requirement	
7	STT 3250 Fundamentals of Probability	3	Major Requirement	
7	Approved Related Coursework 1	3	Major Requirement	
7	Approved Related Coursework 2	3	Major Requirement	
7	Free Elective	3		15
8	CAPSTONE Course	4	CAPSTONE	
8	Approved MAT or STT Elective 2	3	Major Requirement	
8	Approved Related Coursework 3	3	Major Requirement	
8	Free Elective	3	Major Requirement	
8	Free Elective	3	Take enough free electives to reach 122 hours required for graduation	16
				62-72
				60 transfer hours
				122-132 hours for graduation

- If Calculus II (MAT 272) is not offered at the community college attending, it is recommended that students transfer after completing 30 hours of coursework.
- Many summer courses are offered. Students are encouraged to take summer classes, when available, to ensure completion of degree in a timely manner and so not to overload semesters.

## Residency Requirements:

- 31 hours must be from ASU
- 18 hours in the major must be from ASU
- 9 hours in the minor must be from ASU
- Final 30 hours must be courses taken through ASU (includes internships, study abroad taken through ASU)