

**2018/2019 NAU-Yuma Bachelor of Science  
Biological and Ecological Sciences**

**Imperial Valley College Associate in Science - General Science**

**Advising Sheet**

REQUIRED LOWER DIVISION MAJOR COURSES			Term Completed	Grade
BIOL 180	General Biology: Molecules, Cells and Genetics	4 units		
BIOL 182	General Biology: Principles of Organismal Biology	4 units		
CHEM 200	General Inorganic Chemistry I	5 units		
CHEM 202	General Inorganic Chemistry II	5 units		
CHEM 204	Organic Chemistry I	5 units		
MATH 192	Calculus I	4 units		
PHYS 200	General Physics I	4 units		
PHYS 202	General Physics II	4 units		
CHEM 206 is recommended: Organic Chemistry II				
INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC-NAU)				
AREA 1 – ENGLISH COMMUNICATION				
ENGL 110	Composition and Reading	4 units		
ENGL 201	Advanced Composition	3 units		
COMM 100 or COMM 180	Oral Communication or Argumentation and Debate	3 units		
AREA 2 – MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING				
Math 192	Calculus I	4 units		Major Prep
AREA 3 – ARTS AND HUMANITIES (3 courses with at least 1 course from Arts and 1 course from Humanities)				
	IGETC 3A – Arts course	3 units		
	IGETC 3B – Humanities: HIST 101 (G) or HIST/LAS 131 (G) or HIST/LAS 132 (E) or RELS 100 (G)	3 units		
	IGETC 3A or 3B course	3 units		
AREA 4 – SOCIAL AND BEHAVIORAL SCIENCES (3 courses from at least 2 different academic disciplines)				
	ADS/SOC 150 ( E) Recommended or ANTH 102 (G) or AIS/ANTH 106 (E) or HIST 101 (G) or HIST/LAS 131 (G) or HIST/LAS 132 (E)	3 units		
	IGETC Social and Behavioral Sciences course	3 units		
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AREA 5 – PHYSICAL AND BIOLOGICAL SCIENCES (Minimum 7- 9 units with at least one lab course)				
CHEM 100	Introduction to Chemistry	4 units		
BIOL 180	General Biology: Molecules, Cells and Genetics	4 units		Major Prep
IVC GRADUATION REQUIREMENTS: GENERAL SCIENCE &/OR UNIVERSITY STUDIES: SCIENCE & MATH WITH IGETC-CSU				
POLS 102	American Government and Politics; IGETC Area 4 course	3 units		
HIST 120 or HIST 121	United States History: Prehistory to Reconstruction or United States History: Reconstruction to the Present; IGETC Area 4 course	3 units		
HE 102	Health Education	3 units		
PE 100	Lifetime Exercise Science	2 units		
	Physical Education Activity course	1 unit		

**NAU Additional Information:**

- IGETC-NAU: Complete one (E) Ethnic and one (G) Global recommended course in order to meet NAU's Diversity Requirements.
- NAU accepts 64 transferable units that can be applied to meet the NAU degree unit requirement.

## Bachelor of Science Biological and Ecological Sciences 2018-2019 Undergraduate Catalog (120 Units) (Upper Division Coursework)

*The Biological and Ecological Sciences degree encompasses numerous cutting-edge disciplines. Each offers a multitude of exciting career paths. You can also train to teach biology in secondary or primary schools. You can prepare for admission to graduate, medical, dental, or veterinary school, or for other professional training.*

**MAJOR COURSES 53 credits**

COURSE NUMBER	COURSE TITLE	UNITS
BIO 181/L	Unity of Life I: The Life of the Cell/Lab (BIOL 180 at IVC)	4
BIO 182/L	Unity of Life II: Lives of Multicellular Organisms/Lab (BIOL 182 at IVC)	4
BSC 326/326LW (Jr. Level Writing Requirement)	Ecology: Ecology Lab	4
BSC 350/350L	Classical and Molecular Genetics: Genetics Lab	4
BSC 408 or BSC 485	Fieldwork Experience OR Undergraduate Research	3
BSC 435C	Evolutionary Biology	3
BSC 460, BSC 460L or CHM 360. CHM 460LC	Principles of Biochemistry: Biochemistry Lab, or Fundamental Biochemistry; Biochemistry Lab	4

**PHYSICAL SCIENCE FOUNDATION REQUIREMENT:**

CHM 151/L	General Chemistry I/Lab (CHEM 200 at IVC)	4
CHM 152/L	General Chemistry II/Lab (CHEM 202 at IVC)	4
CHM 235/L	General Organic Chemistry I/Lab (CHEM 204 at IVC)	4
CHM 238 (recommended, not required)	General Organic Chemistry II/Lab (CHEM 206 at IVC)	4

**CHOOSE ONE OF THE FOLLOWING MATH COMBINATIONS:**

MAT 125 AND (STA 270 OR PSY 230) OR	Pre-calculus Mathematics (MATH 190 at IVC) and Statistics (MATH 119 at IVC)	4 4
MAT 136	Calculus I (MATH 192 at IVC)	4

**PHYSICS COMBINATION**

PHY 111 AND PHY 112	General Physics I General Physics II	4 4
OR		
PHY 161 AND PHY 262/L	University Physics I (PHYS 200 at IVC) University Physics II (PHYS 202 at IVC)	4 4

**At least 14 units of additional NAU course work: any 100 to 200 level BIO courses except BIO 100 or any BIO recitation. Any BSC course except 310; up to 6 hours from BIO 497. Up to 6 units of non-BIO prefix courses from the following: PSY 320, 350, 355, 370, 432**

<b>Total NAU credits</b>	<b>56 credits</b>
<b>General Electives</b>	<b>As needed to reach 120 credits</b>
<b>Total credits required to complete degree</b>	<b>120 credits</b>

Program requirements are subject to change each year. Please see your NAU academic advisor for the most current information.