

Curriculum Sheet for 2017-2018 Catalog

This Curriculum expires after six years.

Degree: **Bachelor of Science**
 Major: **BIOLOGY**
 Emphasis: **Ecology**

UNIVERSITY CORE CURRICULUM

			SCH	PREREQUISITES
_____	COMM 1311	Foundation of Communication	Communication	3
_____	ENGL 1302	Writing and Rhetoric	Communication	3
_____	See Catalog		Language, Philosophy, and Culture	3
_____	HIST 1301	US History to 1865	American History	3
_____	HIST 1302	US History Since 1865	American History	3
_____	POLS 2305	US Government and Politics	Government/Political Science	3
_____	POLS 2306	State and Local Government	Government/Political Science	3
_____	See Catalog		Creative Arts	3
_____	PSYC 2301	General Psychology	Social and Behavioral Science	3
_____	MATH 2413	Calculus I	Mathematics	(3) See catalog for pre-requisite courses
_____	BIOL 1406	Gen Biology I	Life and Physical Sciences	(3)
_____	BIOL 1407	Gen Biology II	Life and Physical Sciences	(3)
_____	CHEM 1411	Gen. Chemistry I	Component Area Option	(3)
_____	CHEM 1412	Gen. Chemistry II	Component Area Option	(3)

Note: Taking core curriculum courses other than those listed below will result in additional credit hours apply to your degree. Please consult your academic advisor for more details.

First-Year Seminars/ Professional Skills

2 Credits required

Choose UCCP 1101 & UCCP 1102 or BIOL 2200

_____	UCCP 1101 & UCCP 1102	First-Year Seminar		2
_____	BIOL 2200	Professional Skills		2

Biology Core:

_____	BIOL 1406	Biology I	*Life and Physical Sciences Core Course	4	MATH 1314 or see catalog for placement criteria
_____	BIOL 1407	Biology II	*Life and Physical Sciences Core Course	4	BIOL 1406
_____	BIOL 2416	Genetics		4	BIOL 1406 w "C", 1407, CHEM 1411, 1412
_____	BIOL 2421	Microbiology		4	BIOL 1406 w "C", 1407, CHEM 1411, 1412
_____	BIOL 2371	Principles of Evolution (FL, SS)		3	BIOL 1407
_____	BIOL 3428	Principles of Ecology		4	BIOL 1407, CHEM 1411, BIOL 2200 or UCCP1101, 1102, MATH 2413
_____	CHEM 1411	Gen. Chemistry I	*Component area Option Core Course	4	MATH 1314 or see catalog for placement criteria
_____	CHEM 1412	Gen. Chemistry II	*Component area Option Core Course	4	Chem 1411
_____	*CHEM 3411	Organic Chemistry I		4	Chem 1411
_____	*CHEM 3412	Organic Chemistry II		4	Chem 3411
_____	MATH 2413	Calculus I		4	MATH 1314 & 1316 or MATH 2312, or placement beyond MATH 2312
_____	*BIOL 4292	Senior Presentation		2	BIOL 2200, Sr. standing

Math requirement:

Choose one from the following:

_____	MATH 1314	College Algebra		3	College Ready
_____	MATH 1316	Trigonometry		3	MATH 1314, level IV ready
_____	MATH 2312	Precalculus		3	MATH 1314, level IV ready
_____	MATH 2414	Calculus II		4	MATH 2413
_____	MATH 3342	Applied Probability and Stats		3	MATH 2413

Chemistry of Life/Cell Biology Requirement: Choose one from the following:

_____	BIOL 3403	Molecular Biology (SP)		4	BIOL 2416 and BIOL 2421
_____	BIOL 3410	Cell Biology (FL)		4	CHEM 3411 and BIOL 2416
_____	CHEM 4401	Biochemistry I		4	CHEM 3412 and one year biology

Form and Function requirement: Choose one from the following:

_____	BIOL 3425	Functional Anatomy (SP)		4	BIOL 1407
_____	BIOL 3430	Physiology (FL,SS)		4	BIOL 1407
_____	BIOL 3455	Plant Form and Function (alt)		4	BIOL 1407

Organismal Biology requirement: Choose one from the following:

_____	BIOL 2472	Principles of Botany (SP)		4	BIOL 1407, CHEM 1411
_____	BIOL 3413	Invertebrate Zoology (FL, SS)		4	BIOL 1407
_____	BIOL 3414	Vertebrate Zoology (FL)		4	BIOL 1407

ECOLOGY CORE CLASSES: Choose two from the following:

_____	BIOL 3479	Plant Ecology (Odd SP)		4	BIOL 1407
_____	BIOL 4405	Limnology		4	BIOL 3428
_____	BIOL 4408	Microbial Diversity and Ecology (Odd FL)		4	BIOL 2421
_____	BIOL 4436	Marine Ecology (SP)		4	BIOL 3428
_____	BIOL 4446	Tropical Ecosystems and Conservation		4	BIOL 3428

Advanced Math Requirement:

_____	MATH 3342	Applied Probability and Stats		3	MATH 2413
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ECOLOGY ELECTIVES: See elective list

16-17

University Requirements

Minimum Total Hours for degree:	120	Minimum Major grade point average (g.p.a.):
*Upper Division minimum total hours:	45	
*Upper Division minimum residency hours:	36	
*Upper Division minimum major residency hrs:	12	
Cumulative TAMU-CC minimum g.p.a.:	2	First Year Seminar Requirement: UCCP 1101/1102
Foreign Language Requirement:	see catalog	

Ecology Electives: Choose 22-23 hours

COURSE

BIOL2472	Principles of Botany	*If not used elsewhere for degree
BIOL 3300	Animal Nutrition	
BIOL 3345	Cell Physiology	
BIOL 3403	Molecular Biology	*If not used elsewhere for degree
BIOL 3410	Cell Biology	*If not used elsewhere for degree
BIOL 3413	Invert. Zoology	*If not used elsewhere for degree
BIOL 3414	Vert. Zoology	*If not used elsewhere for degree
BIOL 3425	Functional Anatomy	*If not used elsewhere for degree
BIOL 3430	Physiology	*If not used elsewhere for degree
BIOL 3455	Plant Form & Function	*If not used elsewhere for degree
BIOL 3479	Plant Ecology	*If not used elsewhere for degree
BIOL 4299	Directed Independent Research	
BIOL 4301	Embryology	
BIOL4302	Coral Reef Conservation	
BIOL 4304	Biology of Viruses	
BIOL 4319	Marine Mammals	
BIOL 4323	Global Change Ecology	
BIOL 4326	Toxic & Therapeutic Plants	
BIOL 4340	Genomics, Proteomics, & Bioinformatics	
BIOL 4350	Research & Design	
BIOL 4370	Mariculture	
BIOL 4371	Population Genetics	
BIOL 4396	Directed Independent Study	
BIOL 4405	Limnology	*If not used elsewhere for degree
BIOL 4406	Immunology	
BIOL 4407	Biology of the Fungi	
BIOL 4408	Microbial Diversity & Ecology	*If not used elsewhere for degree
BIOL 4409	Field & Sampling Techniques	
BIOL 4411	Animal Behavior	
BIOL 4413	Entomology	
BIOL 4422	Plant Taxonomy	
BIOL 4425	Ornithology	
BIOL 4428	Fisheries	
BIOL 4429	Marine Botany	
BIOL 4431	Mammology	
BIOL 4432	Ichthyology	
BIOL 4433	Parasitology	
BIOL 4435	Biological Microtechniques	
BIOL 4436	Marine Ecology	*If not used elsewhere for degree
BIOL 4442	Herpetology	
BIOL 4444	Estuarine Organisms	
BIOL 4446	Tropical Ecos & Conserv	*If not used elsewhere for degree
BIMS3401	Pathophysiology	
BIMS4311	Biology of Cancer	
BIMS4323	Neurobiology	
BIMS4327	Intro to Toxicology	
BIMS4330	Biological Basis of Aging	
BIMS4333	Medical Entomology	
BIMS4334	Human Genetics	
BIMS4335	Endocrinology	
BIMS4374	Medical Microbiology	
BIMS4375	Mechanisms of Microbial Pathogenesis	
BIMS4410	Histology	
PHYS 1401 04 24	Physics I	
PHYS 1402 or 24	Physics II	
MATH2414	Calculus II	*If not used elsewhere for degree
BIOL4590	Selected Topics	With Faculty Mentor Approval
*Electives		With Faculty Mentor Approval

PRE-REQ

4	BIOL1407, CHEM1411
3	BIOL 1407, CHEM3411, Pre/Corequisite of CHEM3412
3	BIOL 2200, BIOL3410
4	BIOL 2416, BIOL2421
4	BIOL 2416 & CHEM3411
4	BIOL 1407
4	BIOL 1407
4	BIOL 1407
4	BIOL 1407
4	BIOL 1407
4	BIOL 1407
3	BIOL 2416
3	BIOL3428
3	BIOL 2416, BIOL2421, CHEM1411
3	BIOL 1407
3	none
3	BIOL 1407
3	BIOL 2416 & BIOL3410 or CHEM4401
3	PROF. PERM.
3	BIOL 1407
3	BIOL 2416, MATH1442 or 2413
3	20 HRS. BIO & PROF. PERM.
4	BIOL 3428
4	BIOL 2421
4	BIOL 2421
4	PROF. PERM.
4	BIOL 1407
4	BIOL 3413
4	BIOL 1407
4	BIOL 3414
4	BIOL 1407
4	BIOL 1407
4	BIOL 3414
4	BIOL 3414
4	BIOL 2421
4	CHEM 3411, BIOL1407
4	BIOL 3428
4	BIOL 3414
4	BIOL 3413
4	BIOL 3428
4	CHEM1411, BIOL1407, BIOL2401
3	BIOL2416, BIOL3410 strongly recommended
3	BIOL2416
3	BIOL1407, CHEM1412
3	BIOL1407, CHEM3411
3	BIOL1407
3	CHEM3412, BIOL2416
3	BIOL2200, CHEM3412, BIOL2416
3	BIOL2421
3	BIOL2421
4	BIOL3425
4	(For 2425- MATH2413)
4	(For 2426- MATH2414)
4	Math 2413
4	