

This Curriculum expires after six years.

Curriculum Sheet for 2017-2018 Catalog

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

UNIVERSITY CORE CURRICULUM

_____	COMM 1311	Foundation of Communication
_____	ENGL 1302	Writing and Rhetoric
_____	See Catalog	Language, Philosophy, Culture
_____	HIST 1301	US History to 1865
_____	HIST 1302	US History Since 1865
_____	POLS 2305	US Government and Politics
_____	POLS 2306	State and Local Government
_____	See Catalog	Creative Arts
_____	PSYC 2301	General Psychology
_____	MATH 2413	Calculus I
_____	BIOL 1406	Gen Biology I
_____	BIOL 1407	Gen Biology II
_____	CHEM 1411	Gen. Chemistry I
_____	CHEM 1412	Gen. Chemistry II

SCH PREREQUISITES

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3	See catalog
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(3)	MATH 1314 and 1316, or MATH 2312, or placement beyond MATH 2312
(3)	MATH 1314 or see catalog for placement criteria
(3)	BIOL 1406
(3)	MATH 1314 or see catalog for placement criteria
(3)	CHEM 1411

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

First-Year Seminars / Professional Skills

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

Biology Core

_____	BIOL 1406	Biology I	4	MATH 1314 or see catalog for placement criteria
_____	BIOL 1407	Biology II	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	3	BIOL 1407
_____	BIOL 3428	Principles of Ecology	4	BIOL 1406, CHEM 1411, BIOL 2200 or UCCP1101/1102, MATH 2412
_____	CHEM 1411	Gen. Chemistry I	4	MATH 1314 or see catalog for placement criteria
_____	CHEM 1412	Gen. Chemistry II	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 and 1316, or MATH 2312, or placement beyond MATH 2312
_____	*BIOL 4292	Senior Presentation	2	BIOL 2200, Senior standing

Math requirement

Choose one from the following:				
_____	MATH 1314	College Algebra	3	College Ready
_____	MATH 1316	Trigonometry	3	MATH 1314, level IV placement
_____	MATH 2312	Precalculus	3	MATH 1314, level IV placement
_____	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

MICROBIOLOGY CORE CLASSES: (27 sem hours)

_____	BIOL 3403	Molecular Biology (SP)	4	BIOL 2416 and BIOL 2421
_____	BIOL 4406	Immunology	4	BIOL 2421
_____	BIMS 4374	Medical Microbiology	3	BIOL 2421
_____	CHEM 4401	Biochemistry I	4	CHEM 3412 and one year biology
_____	CHEM 4402	Biochemistry II	4	CHEM 4401
_____	PHYS 1401 or 2425	Physics I	4	See catalog
_____	PHYS 1402 or 2426	Physics II	4	See catalog

MICROBIOLOGY ELECTIVES ELECTIVES: See elective list

7-8

University Requirements

Minimum Total Hours for degree:	120	Minimum Major grade point average (g.p.a.):	2.50
*Upper Division minimum total hours:	45	Cumulative TAMU-CC minimum g.p.a.:	2.00
*Upper Division minimum residency hours:	36	First Year Seminar Requirement: UCCP 1101/1102	2
*Upper Division minimum major residency hrs:	12	Foreign Language Requirement:	See catalog

Microbiology Electives: Choose 7-8 hours

COURSE			PRE-REQ
BIOL 2472	Principles of Botany	*If not used elsewhere for degree	4 BIOL1407, CHEM 1411
BIOL 3300	Animal Nutrition		3 BIOL 1407, CHEM 3411, Pre/Corequisite of CHEM 3412
BIOL 3345	Cell Physiology		3 BIOL 2200, BIOL 3410
BIOL 3410	Cell Biology	*If not used elsewhere for degree	4 BIOL 2416 & CHEM 3411
BIOL 3413	Invert. Zoology	*If not used elsewhere for degree	4 BIOL 1407
BIOL 3414	Vert. Zoology	*If not used elsewhere for degree	4 BIOL 1407
BIOL 3425	Functional Anatomy	*If not used elsewhere for degree	4 BIOL 1407
BIOL 3430	Physiology	*If not used elsewhere for degree	4 BIOL 1407
BIOL 3455	Plant Form & Function	*If not used elsewhere for degree	4 BIOL 1407
BIOL 3479	Plant Ecology		4 BIOL 1407
BIOL 4299	Directed Independent Research		
BIOL 4301	Embryology		3 BIOL 2416
BIOL4302	Coral Reef Conservation		3 BIOL3428
BIOL 4304	Biology of Viruses		3 BIOL 2416, BIOL2421, CHEM1411
BIOL 4319	Marine Mammals		3 BIOL 1407
BIOL 4323	Global Change Ecology		3 none
BIOL 4326	Toxic & Therapeutic Plants		3 BIOL 1407
BIOL 4340	Genomics, Proteomics, & Bioinformatics		3 BIOL 2416 & BIOL3410 or CHEM4401
BIOL 4350	Research & Design		3 Permissioning of instructor
BIOL 4370	Mariculture		3 BIOL 1407
BIOL 4371	Population Genetics		3 BIOL 2416, MATH1442 or 2413
BIOL 4396	Directed Independent Study		3 20 hours of biology and Permission of instructor
BIOL 4405	Limnology		4 BIOL 3428
BIOL 4407	Biology of the Fungi		4 BIOL 2421
BIOL 4408	Microbial Diversity & Ecology		4 BIOL 2421
BIOL 4409	Field & Sampling Techniques		4 Permissioning of instructor
BIOL 4411	Animal Behavior		4 BIOL 1407
BIOL 4413	Entomology		4 BIOL 3413
BIOL 4422	Plant Taxonomy		4 BIOL 1407
BIOL 4425	Ornithology		4 BIOL 3414
BIOL 4428	Fisheries		4 BIOL 1407
BIOL 4429	Marine Botany		4 BIOL 1407
BIOL 4431	Mammology		4 BIOL 3414
BIOL 4432	Ichthyology		4 BIOL 3414
BIOL 4433	Parasitology		4 BIOL 2421
BIOL 4435	Biological Microtechniques		4 CHEM 3411, BIOL1407
BIOL 4436	Marine Ecology		4 BIOL 3428
BIOL 4442	Herpetology		4 BIOL 3414
BIOL 4444	Estuarine Organisms		4 BIOL 3413
BIOL 4446	Tropical Ecos & Conserv		4 BIOL 3428
BIMS 3401	Pathophysiology		4 CHEM 1411, BIOL 1407, BIOL 2401
BIMS 4311	Biology of Cancer		3 BIOL 2416, BIOL 3410 strongly recommended
BIMS 4323	Neurobiology		3 BIOL 2416
BIMS 4327	Intro to Toxicology		3 BIOL 1407, CHEM 1412
BIMS 4330	Biological Basis of Aging		3 BIOL 1407, CHEM 3411
BIMS 4333	Medical Entomology		3 BIOL 1407
BIMS 4334	Human Genetics		3 CHEM 3412, BIOL 2416
BIMS 4335	Endocrinology		3 BIOL 2200, CHEM 3412, BIOL 2416
BIMS 4375	Mechanisms of Microbial Pathogenesis		3 BIOL 2421
BIMS 4410	Histology		4 BIOL 3425
MATH 2414	Calculus II	*If not used elsewhere for degree	4 MATH 2413
BIOL4590	Selected Topics	With Faculty Mentor Approval	
Electives		With Faculty Mentor Approval	4