

ACCELERATED BACHELOR OF SCIENCE IN BIOLOGY/ PROFESSIONAL SCIENCE MASTER'S IN BIOTECHNOLOGY (P.S.M.)

Degree Requirements

Degree requirements listed here are for completion of the undergraduate portion of the accelerated B.S. in Biology/P.S.M. in Biotechnology program. In the final semester of the B.S. in Biology, students must apply for formal admission to the P.S.M. in Biotechnology graduate program and meet all admissions requirements. Please see the Graduate Catalog for a complete list of degree requirements for the P.S.M. in Biotechnology program (<http://catalog.twu.edu/graduate/arts-sciences/biology/professional-science-master-biotechnology/>).

Total Semester Credit Hours (SCH): 121

Major: 45 SCH; **Minor:** 18 SCH

Program Code: BIOTECH.PSM.ACC **CIP Code:** 26.0101.00

Lecture and lab must be taken concurrently. A minimum grade of C is mandatory in all required courses for Biology majors.

Texas Core Curriculum

Code	Title	SCHs
ENG 1013	Composition I	3
ENG 1023	Composition II	3
Mathematics		3
Life & Physical Sciences		6
Language, Philosophy, & Culture		3
Creative Arts		3
HIST 1013	History of the United States, 1492-1865	3
HIST 1023	History of the United States, 1865 to the Present	3
POLS 2013	U.S. National Government	3
POLS 2023	Texas Government	3
Social & Behavioral Sciences		3
CAO: Women's Studies		3
CAO: First Year Seminar, Wellness or Mathematics		3
Total SCHs		42

Courses Required for Major

Code	Title	SCHs
BIOL 2113 & BIOL 2111	Plant Biology and Plant Biology Laboratory	4
BACT 3113 & BACT 3111	General Microbiology and General Microbiology Laboratory	4
ZOOL 4243 & ZOOL 4241	Medical Physiology and Medical Physiology Laboratory	4
BIOL 4681	Biology Seminar	1

BIOL 4813 & BIOL 4811	Molecular and Cellular Biology: Gene Expression and Molecular and Cellular Biology: Gene Expression Laboratory	4
BIOL 4823 & BIOL 4821	Molecular and Cellular Biology: Genetics and Inheritance and Molecular and Cellular Biology: Genetics and Inheritance Laboratory	4
Biology Undergraduate Electives		4
Graduate Requirements in the Fourth Year		12
BIOL 5293	Advanced Scientific Communication	
BIOL 5543	Advanced Genome Editing and Medical Ethics	
or BIOL 5903	Special Topics	
BIOL 5503	Research Methods	
BUS 5013	Foundations in Business	

Total SCHs 37

Departmental Requirements

Code	Title	SCHs
BIOL 1113 & BIOL 1111	Principles of Biology I and Principles of Biology I Laboratory	4
BIOL 1123 & BIOL 1121	Principles of Biology II and Principles of Biology II Laboratory	4
Choose one of the following:		4
CHEM 1113 & CHEM 1111	General Chemistry I and General Chemistry Laboratory I	
CHEM 1213 & CHEM 1211	Principles of Chemistry I and Principles of Chemistry Laboratory I	
Choose one of the following:		4
CHEM 1123 & CHEM 1121	General Chemistry II and General Chemistry Laboratory II	
CHEM 1223 & CHEM 1221	Principles of Chemistry II and Principles of Chemistry Laboratory II	
CHEM 2213 & CHEM 2211	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 3223 & CHEM 3221	Organic Chemistry II and Organic Chemistry Laboratory II	4
MATH 1303	College Algebra	3-4
or MATH 2014	Calculus I	
MATH 1703	Elementary Statistics I	3
Choose one of the following:		4
PHYS 1133 & PHYS 1131	Principles of Physics I and Principles of Physics Laboratory I	
PHYS 2153 & PHYS 2151	General Physics I and General Physics Laboratory I	
Choose one of the following:		4
PHYS 1143 & PHYS 1141	Principles of Physics II and Principles of Physics Laboratory II	
PHYS 2163 & PHYS 2161	General Physics II and General Physics Laboratory II	
Electives/Minor		18
Total SCHs		56-57