

# Navajo Technical University

Name: \_\_\_\_\_

ID#: \_\_\_\_\_

## Bachelor of Science Degree – Biology (119-120 Credits)

Students develop a broad knowledge of biology that is integrated with dynamic high quality research programs in specialized areas like molecular biology, genetics, animal and plant physiology, ecology, cell and developmental biology, evolution and behavior. Research experience would instill in students the scientific application of theoretical knowledge to real world problems, as well as provide them the opportunity to work with, and get to know researchers working in their desired fields. Knowledge of these specialized subjects is intended to lay the groundwork for entry into a range of much needed careers in the Native American Communities (especially the Navajo Nation), including medicine, dentistry, optometry, pharmacy, conservation and management of the environment, and provide them broader job opportunities elsewhere in biotechnology, agriculture, forestry, and fisheries. The program provides students who are interested in going to medical school the right support and preparation to successfully pass the MCAT/PCAT\* exams and the needed guidance for the application process.

Students interested in pre-med Biology need to complete the core Biology and general education courses within the first two years of study with a grade point average of 2.5 or better before taking the upper level core courses (300 and 400-level courses). In addition, Pre-med Biology majors are required to be in good standing thereafter with a grade point average of at least 3.00 or better to continue as pre-med majors.

*\*MCAT: Medical College Admissions Test*

*PCAT: Pharmacy College Admissions Test*

Semester ONE		CREDITS	Prerequisite	Semester/ Transfer	Grade
ENGL 1110	Composition I	3	ENGL098 or satisfactory placement scores		
PSYC 1110	Introduction to Psychology	3			
MATH 1220	College Algebra	4	MATH1215 or satisfactory placement scores		
SSC 100	College Success	1			
<b>Semester TWO</b>					
ENGL 1120	Composition II	3	ENGL 1210 OR 1110		
MATH 1230	Trigonometry	4	MATH 1220		
HUMN 1180	History of American Indians in Media	3			
NAVA 2210	Navajo Culture	3			
BIOL 2110C	Principles of Biology: Cellular & Molecular Biology	4			
<b>Semester THREE</b>					
ENGL 2130	Introduction to Creative Writing	3	ENGL098		
CHEM 1217C	Principles of Chemistry I	4	MTH 120, CHEM1120		
PHYS 1115C	Survey of Physics with Lab	4			
<b>Semester FOUR</b>					
MTH 315	Biostatistics	4	MATH1220		
BIOL 2120C	Cellular & Molecular Biology II	4			
CHEM 1225C	General Chemistry II for STEM majors	4	CHEM1217C		
PHYS 1230C	Algebra-Based Physics I	4	MATH 1215		
<b>Semester FIVE</b>					
BIOL 2630C	General Botany	4			
CHEM 2130C	Organic Chemistry I	4	CHM122		
BIOL 2310C	Microbiology	4	BIOL 2110C or BIOL 2120C		
BIO 226	Principles of Genetics	4	BIO120 or 122		
<b>Semester SIX</b>					
CHEM 286	Inorganic Chemistry with Lab II	4	CHEM1217C		
BIOL 1310C	Introduction to Human Anatomy & Physiology I	4			
BIOL 302	Cell Biology	4	BIOL 2110C OR BIOL 2120C		
BIOL 409	Molecular Biology	4	BIOL 2110C or BIOL 2120C		

Semester SEVEN					
CHEM 2135C	Organic Chemistry II	4	CHM468		
BIOL 2130C	Introduction to Biochemistry	4	BIO 302 or permission		
BIOL1320C	Introduction to Human Anatomy & Physiology II	4	BIOL 1310C		
BIO 410	Ecology	4			
Semester EIGHT					
BIOL404	Bioinformatics	4	BIOL 2110C, 122, 226, 302 and CHM 471		
BIOL 408	Nutrition and Obesity	4			
BIOL 411	Ethnobotany	4			
BIO ELECT – choose on	BIOL 225 Medical Writing BIOL 400 Model Organisms BIO 402 Biology Research Projects BIO 405 Cancer Biology and Therapeutics BIO 406 Diabetes and Complications BIO 407 Diagnostic Enzymology BIO 412 Development Biology BIO 413 Evolutionary Biology	4-5 Credits	SEE CATALOG FOR PREREQUISITES		
<b>TOTAL CREDIT HOURS REQUIRED</b>		<b>119-120</b>			

	Signatures	Date
Student:		
Advisor:		
Registrar:		
Graduation Date:		

Updated 7/22/2020