



**Associate in Science in Biotechnology (TCC) to  
Bachelor of Science in Biochemistry and Molecular Biology: Pre-Medical or Pre-Veterinary  
Science (OSU)**

**TULSA COMMUNITY COLLEGE (years 1 and 2) – 2020-21**

**Year One – Tulsa Community College**

Fall Semester			Spring Semester		
TCC Equivalent or Substitute	OSU Requirement	✓	TCC Equivalent or Substitute	OSU Requirement	✓
ENGL 1113 – Composition I	ENGL 1113		ENGL 1213 – Composition II	ENGL 1213	
HIST 1483 – Am Hist 1492 - Civil War or HIST 1493 – Am Hist Civil War - now	HIST 1483 (H) or HIST 1493 (DH)		POLS 1113 – American Federal Government	POLS 1113	
MATH 1513* – Precalculus I (A)	MATH 1513 (A)		CHEM 1315– General Chemistry I	CHEM 1314 (LN) + 1 - - 1 (LN)	
BIOT 1113 – Introduction to Biotechnology	MICR 1- - 3 (general elective)		BIOT 1533 – Cell Culture Techniques	MICR 1- -3 (in 7 hours major related)	
BIOL 1224 – Introduction to Biology for Majors	BIOL 1114 (LN)				
<b>Semester Credit Hours at TCC: 16</b>			<b>Semester Credit Hours at TCC: 14</b>		

\*OSU requires MATH 2114 for this degree program. If a student places into MATH 1613, 1715 or 2114 it is recommended that they take one of those courses at TCC for their General Education Math. If a student takes MATH 1513, two additional Math courses will be needed at OSU.

**Year Two – Tulsa Community College**

Fall Semester			Spring Semester		
TCC Equivalent or Substitute	OSU Requirement	✓	TCC Equivalent or Substitute	OSU Requirement	✓
Humanities (3 credit hours)	(H) Humanities		Humanities (3 credit hours)	(H) Humanities	
BIOT 2245 – Molecular Biology and Techniques	MICR 2- -5 (5 hours N – waived with AS degree)		BIOT 2334 – Biotechnology Proteomics & Instrumentation	MICR 2- -4 (in 7 hours major related)	
CHEM 1415– General Chemistry II	CHEM 1515 (LN)		BIOL 2164 – Microbiology	MICR 2123 (N) & MICR 2132 (LN)	
ECON 2023 – Microeconomics (General Ed Required Elect)	ECON 2003 (S) subs for AGECE 1113		BIOL 1404 – General Botany or BIOL 1604 - Zoology	PBIO 1404 (LN) or BIOL 1604	
<b>Semester Credit Hours at TCC: 16</b>			<b>Semester Credit Hours at TCC: 15</b>		

Before transferring to OSU, have the TCC Registrar send an official transcript to the OSU Admissions Office with any degrees earned noted on the transcript. If you have not completed the requirements for an associate degree, talk with your OSU Academic Advisor about Reverse Transfer options to use OSU coursework to complete your TCC associate degree.

**OKLAHOMA STATE UNIVERSITY (years 3 and 4) – 2019-20**

<b>Year Three – Oklahoma State University</b>			
<b>Fall Semester</b>		<b>Spring Semester</b>	
<b>OSU Requirement</b>	✓	<b>OSU Requirement</b>	✓
CHEM 3053 – Organic Chemistry I		CHEM 3153 – Organic Chemistry II	
MATH 1813 – Preparation for Calculus		CHEM 3112 – Organic Chemistry Laboratory	
3 hours from Group 1, 2, or 3		STAT 2013 – Elementary Statistics or MATH 2153 – Calculus II or STAT 4013 – Statistical Methods I	
ANSI 3423 – Animal Genetics BIOL 3023 – General Genetics or PLNT 3554 – Plant Genetics and Biotechnology		BIOL 3204 – Physiology ENTO 3044 – Insect Morphology and Physiology or PBIO 4463 – Plant Physiology	
AGCM 3103 – Written Communication in ASNR or BCOM 3113 – Written Communication or BCOM 3443 – Business Comm for International Students or ENGL 3323 – Technical Writing		MATH 2144 – Calculus I	
<b>Semester Credit Hours at OSU: 15-16</b>		<b>Semester Credit Hours at OSU: 15-16</b>	

<b>Year Four – Oklahoma State University</b>			
<b>Fall Semester</b>		<b>Spring Semester</b>	
<b>OSU Requirement</b>	✓	<b>OSU Requirement</b>	✓
BIOC 3713 – Biochemistry I		BIOC 3813 – Biochemistry II	
BIOC 3223 – Physical Chemistry for Biologists or CHEM 3433 – Physical Chemistry I		BIOC 3723 – Biochemistry and Molecular Biology Lab	
AGCM 3203 – Oral Communications in ASNR or SPCH 3733 – Elements of Persuasion		BIOC 4883 – Senior Seminary in Biochemistry	
PHYS 1114 – College Physics I or PHYS 2014 – University Physics I		PHYS 1214 – College Physics II or PHYS 2114 – University Physics II	
3 hours general elective (must be upper division)		2 hours general elective if needed to meet total 120 hours and 60 hours from a 4-year institution (must be upper division) or if needed to meet 40 hours upper division	
<b>Semester Credit Hours at OSU: 16</b>		<b>Semester Credit Hours at OSU: 15</b>	

This is just one example of how a student may complete the degree.

