CURRICULUM GUIDE
Biomedical Sciences, B.S. (Pre-Optometry Concentration)
2019-2020
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*The schedule below is an **EXAMPLE** of how you can arrange your class schedule.*
Please consult your advisor for specific changes that may need to be made.

	Fall Semester		Spring Semester	
Freshman Year	SCO 100B	1	BIO 112	4
	BIO 111	4	CHE 112	3
	ᴳCHE 111 (*fulfills Gen. Ed. 4*)	3	CHE 112L	1
	CHE 111L	1	Gen. Ed. 1B (*ENG 102*)	3
	Gen. Ed. 1A (*ENG 101*)	3	ᴳ PSY 200 **or** 200W (*fulfills Gen. Ed. 5B*)	3
	Gen. Ed. 6 *(Diversity)*	3	Free Elective	1
	TOTAL	**15**	**TOTAL**	**15**
Sophomore Year	BIO 319	4	BIO 320 (*ACCT*)	4
	CHE 361	3	BIO 332	1
	CHE 361L	1	PHY 132 ***or*** PHY 202	5
	MAT 234	4	Gen Ed. 3B (*Humanities*)	3
	ᴳ PHY 131 ***or*** PHY 201 (*fulfills Gen. Ed. 4*)	5		
	TOTAL	**17**	**TOTAL**	**13**
Junior Year	BIO 331	3	BIO 315	4
	CHE 362	3	BIO 348	3
	CHE 362L	3	INF 104	3
	PHI 383 ***or*** 383W	1	Gen. Ed. 1C (*CMS 100 **or** 210*)	3
	ᴳ STA 215 **or** STA 270 (*fulfills Gen. Ed. 2*)	3-4	Free Elective	3
	† Restricted Elective	3		
	TOTAL	**16-17**	**TOTAL**	**16**
Senior Year	‡ BIO/CHE Elective	3-4	BIO 495	1
	CHE 430 ***or*** 431	3	‡ BIO/CHE Elective	3-4
	Gen. Ed. 3A *(Arts)*	3	† Restricted Elective	3
	Gen Ed. 6 (*Diversity*)	3	Gen Ed. 5A (*History*)	3
	♠ Free Elective	0-3	Free Elective	3
	TOTAL	**12-16**	**TOTAL**	**13-14**
			TOTAL HOURS TO DEGREE COMPLETION	**120**

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS *(37)*	
SCO 100B	**Student Success Seminar for Biology** *(1)*
CORE COURSE REQUIREMENTS *(28)*	
BIO 111	**Cell and Molecular Biology** *(4)*
BIO 112	**Ecology and Evolution** *(4)*
BIO 315	**Genetics** *(4)*
BIO 319	**Zoology** *(4)*
BIO 320	**Principles of Microbiology** *(4)*
BIO 331	**Cell Biology** *(3)*
BIO 332	**Careers in Biomedical Sciences** *(1)*
BIO 348	**Vertebrate Physiology** *(3)*
BIO 495	**Evolution Theory and Application** *(1)*
PRE-OPTOMETRY CONCENTRATION REQUIREMENTS *(22-24)*	
***CHE 362**	**Organic Chemistry II** *(3)*
***CHE 362L**	**Organic Chemistry Lab II** *(1)*
CHE 430 *or	**Biochemistry of Macromolecules** *(3)*
***CHE 431**	**Metabolic Biochemistry** *(3)*
MAT 234	**Calculus I** *(4)*
PHY 132 *or*	**College Physics II** *(5)*
PHY 202	**University Physics II** *(5)*
‡ **PLUS 6 (SIX) HOURS selected from the following (*BIO/CHE elective*):**	
BIO 527	**Immunology** *(3)*
BIO 528	**Virology** *(3)*
BIO 531	**Principles of Molecular Biology I** *(3)*
BIO 535	**Pathogenic Microbiology** *(4)*
BIO 546	**Histology** *(4)*
BIO 547	**Comparative Vert. Embryology** *(4)*
BIO 549	**Neurobiology** *(4)*
BIO 598	**Special Problems** *(1-6)*
§*CHE 430	**Biochemistry of Macromolecules** *(3)*
§*CHE 431	**Metabolic Biochemistry** *(3)*
***CHE 432**	**Biochemistry Laboratory** *(1)*
§ *Cannot be used for credit in both concentration requirement and restricted electives categories above.*	
PRE-OPTOMETRY SUPPORTING COURSE REQUIREMENTS *(23-24)*	
[ᴳ **CHE 111**	**General Chemistry I** *(3)*
[***CHE 111L**	**General Chemistry Lab I** *(1)*
[* **CHE 112**	**General Chemistry II** *(3)*
[* **CHE 112L**	**General Chemistry Lab II** *(1)*
[* **CHE 361**	**Organic Chemistry I** *(3)*
[* **CHE 361L**	**Organic Chemistry Lab I** *(1)*
INF 104	**Computer Literacy with Software Apps.** *(3)*
PHI 383 *or*	**Health & Biomedical Ethics** *(3)*
PHI 383W	**Health & Biomedical Ethics (*writing intensive*)** *(3)*
ᴳ* **PHY 131 *or***	**College Physics I** *(5)*
ᴳ* **PHY 201**	**University Physics I** *(5)*
ᴳ **PSY 200 *or***	**Introduction to Psychology** *(3)*
ᴳ **PSY 200W**	**Introduction to Psychology** *(writing intensive)* *(3)*
ᴳ **STA 215 *or***	**Intro. to Statistical Reasoning** *(3)*
* **STA 270**	**Applied Statistics I** *(4)*
Bracketed items must be taken concurrently.	
† **PLUS 6 (SIX) HOURS selected from the following (*restricted elective*):**	
ANT 120	**Introduction to Cultural Anthropology** *(3)*
ECO 230	**Principles of Microeconomics** *(3)*
HON 312W	**Special Topics** *(3)*
***PSY 308**	**Abnormal Psychology** *(3)*
SOC 131	**Introductory Sociology** *(3)*
FREE ELECTIVES *(7-10)*	

ᴳ *Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.*