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		Course Number	Course Nam
-	500 1000		DIO 110	•	GENERAL EDUCATI	ON & UNIVERSITY
Freshman	SCO 100B	1	BIO 112	4	SCO 100B	Student Succes
Year	BIO 111	4	CHE 112	3		
· Cai	^G CHE 111 (fulfills Gen. Ed. 4)	3	CHE 112L	1	CORE COURSE REQ	
	CHE 111L	1	Gen. Ed. 1B (<i>ENG 102</i>)	3	BIO 111 BIO 112	Cell and Molec Ecology and Ev
	Gen. Ed. 1A (<i>ENG 101</i>)	3	^G PSY 200 <u>or</u> 200W (fulfills Gen.		BIO 315	Genetics (4)
	Gen. Ed. 6 (Diversity)	3	Ed. 5B)	3	BIO 319	Zoology (4)
			Free Elective	1	BIO 320	Principles of M
					BIO 331	Cell Biology (3)
	TOTAL	15	TOTAL	15	BIO 332	Careers in Bior
	TOTAL	13	TOTAL	13	BIO 348	Vertebrate Phy
Sophomore	BIO 319	4	BIO 320 (ACCT)	4	BIO 495	Evolution Theo
•	CHE 361	3	BIO 332	1	PRE-OPTOMETRY (CONCENTRATION F
Year	CHE 361L	1	PHY 132 or PHY 202	5	*CHE 362	Organic Chemi
	MAT 234	4		3	*CHE 362L	Organic Chemi
		4	Gen Ed. 3B (<i>Humanities</i>)	3	*CHE 430 <u>or</u>	Biochemistry o
	^G PHY 131 <u>or</u> PHY 201 (fulfills	_			*CHE 431	Metabolic Biod
	Gen. Ed. 4)	5			MAT 234	Calculus I (4)
					PHY 132 <u>or</u>	College Physics
					PHY 202	University Phy
	TOTAL	17	TOTAL	13	‡ PLUS 6 (SIX) HOUR	
Junior	BIO 331	3	BIO 315	4	BIO 527 BIO 528	Immunology (3)
	CHE 362	3	BIO 348	3	BIO 531	Principles of N
Year	CHE 362L	3	INF 104	3	BIO 535	Pathogenic Mi
					BIO 546	Histology (4)
	PHI 383 <u>or</u> 383W	1	Gen. Ed. 1C (<i>CMS 100 <u>or</u> 210</i>)	3	BIO 547	Comparative V
	^G STA 215 <u>or</u> STA 270 (fulfills		Free Elective	3	BIO 549	Neurobiology
	Gen. Ed. 2)	3-4			BIO 598	Special Proble
	† Restricted Elective	3			§*CHE 430	Biochemistry o
					§*CHE 431 *CHE 432	Metabolic Biod
	TOTAL	16-17	TOTAL	16	§ Cannot be used for	Biochemistry L
					restricted electives co	
Senior	‡ BIO/CHE Elective	3-4	BIO 495	1	PRE-OPTOMETRY S	-
	CHE 430 <i>or</i> 431	3	‡ BIO/CHE Elective	3-4	∫ ⁶ CHE 111	General Cher
Year	Gen. Ed. 3A (Arts)	3	† Restricted Elective	3	*CHE 111	General Cher
	Gen Ed. 6 (<i>Diversity</i>)	3	Gen Ed. 5A (<i>History</i>)	3	∫* CHE 1112	General Cher
	◆ Free Elective	0-3	Free Elective	3	1* CHE 112L	General Cher
	# I lee Liective	0-3	Tree Liective	3	∫ * CHE 361	Organic Cher
					L* CHE 361L	Organic Cher
					INF 104	Computer Lit
					PHI 383 <u>or</u>	Health & Bio
	TOTAL	12-16	TOTAL	13-14	PHI 383W	Health & Bio
					^G * PHY 131 <u>or</u> ^G * PHY 201	College Physi University Ph
					^G PSY 200 <u>or</u>	Introduction
		TOTAL	HOURS TO DEGREE COMPLETION	120	^G PSY 200W	Introduction
					^G STA 215 <u>or</u>	Intro. to Stati
					* STA 270	Applied Stati
					Brack	eted items must be

Course Number	Course Name
GENERAL EDUCATIO	N & UNIVERSITY REQUIREMENTS (37)
SCO 100B	Student Success Seminar for Biology (1)
CORE COURSE REQU	IREMENTS /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 CO	DNCENTRATION REQUIREMENTS (22-24)
*CHE 362	Organic Chemistry II (3)
*CHE 362L	Organic Chemistry Lab II (1)
*CHE 430 <u>or</u>	Biochemistry of Macromolecules (3)
*CHE 431 MAT 234	Metabolic Biochemistry (3)
PHY 132 <u>or</u>	Calculus I (4) College Physics II (5)
PHY 202	University Physics II (5)
	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 BIO 598	Neurobiology (4) Special Problems (1-6)
§*CHE 430	Special Problems (1-6) Biochemistry of Macromolecules (3)
§*CHE 431	Metabolic Biochemistry (3)
*CHE 432	Biochemistry Laboratory (1)
	redit in both concentration requirement and
restricted electives cat	
PRE-OPTOMETRY SU	IPPORTING COURSE REQUIREMENTS (23-24)
∫ ⁶ CHE 111	General Chemistry I (3)
]*CHE 111L	General Chemistry Lab I (1)
* CHE 112	General Chemistry II (3)
ا* CHE 112L	General Chemistry Lab II (1)
* CHE 361	Organic Chemistry I (3)
L* CHE 361L	Organic Chemistry Lab I (1)
INF 104 PHI 383 <u>or</u>	Computer Literacy with Software Apps. (3) Health & Biomedical Ethics (3)
PHI 383W	Health & Biomedical Ethics (writing intensive) (3)
^G * PHY 131 <u>or</u>	College Physics I (5)
G * PHY 201	University Physics I (5)
^G PSY 200 <u>or</u>	Introduction to Psychology (3)
^G PSY 200W	Introduction to Psychology (writing intensive) (3)
^G STA 215 <u>or</u>	Intro. to Statistical Reasoning (3)
* STA 270	Applied Statistics I (4)
	selected from the following (restricted elective):
	Introduction to Cultural Anthropology (3)
ANT 120 ECO 230	Principles of Microeconomics (3)
HON 312W	Special Topics (3)
*PSY 308	Abnormal Psychology (3)
SOC 131	Introductory Sociology (3)

⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.