

# BACHELOR OF SCIENCE DEGREE IN BIOLOGY

## ADVISING FORM

### CORE-COMPONENT ONE: Foundations of Understanding (0-24 Cr.)

*Goal 1: Students will demonstrate the ability to write logically, clearly, precisely and persuasively through accurate reading and observation, and to acquire, organize, present and document information and ideas.*

**I. Written Communication (0-6)**

ENG 101 \_\_\_\_\_ and ENG 102 \_\_\_\_\_ or exemption \_\_\_\_\_.

*Goal 2: Students will demonstrate the ability to speak logically, clearly, precisely and persuasively through accurate reading and observation, and to acquire, organize, present and document information and ideas.*

**II. Oral Communication (0-3)**

CMM 101 \_\_\_\_\_ or 103 \_\_\_\_\_ or THE 136 \_\_\_\_\_ or exemption \_\_\_\_\_.

*Goal 3: Students will demonstrate competency in a language other than English and an appreciation of the culture of its native speakers.*

**III. Foreign Language (0-6)**

\_\_\_\_\_ 101 and \_\_\_\_\_ 102 or exemption \_\_\_\_\_.

*Goal 4: Students will demonstrate proficiency in mathematics and an understanding of quantitative reasoning.*

**IV. Quantitative reasoning (0-6) (two of the following, one must be MAT)**

MAT 124 \_\_\_\_\_ 107 \_\_\_\_\_ 131 \_\_\_\_\_ 143 \_\_\_\_\_ 151 \_\_\_\_\_ 201 \_\_\_\_\_

MAT 112 or ECN 241 or PSY/SOC 211 \_\_\_\_\_ or exemption \_\_\_\_\_

*Goal 5: Students will demonstrate skill in using digital technology, such as computers and the Internet, to gather, analyze and present information*

**V. Computer Use (Note evidence of basic skill.)**

Exemption BIO 231/232 \_\_\_\_\_ CSC117 \_\_\_\_\_ CSC118 \_\_\_\_\_ Major-Related \_\_\_\_\_

### CORE-COMPONENT TWO Understanding from Multiple Perspectives (25 Cr.)

**I. Humanities (9) - Select one course from each of the following categories.**

*Goal 6: Students will demonstrate an understanding of literary and fine, visual, or performing arts and their cultural context by expressing an informed response to artistic creations.*

\_\_\_\_ 1. Literature: ENG 135, 145, 245, 246, 295, 296; LIT 205, 206, \*(ENG235H)

\_\_\_\_ 2. Fine Arts: FIA 115, 245, 246; MUS 115, 245, 246; THE 115

*Goal 7: Students will demonstrate the ability to develop a critical perspective, to analyze and evaluate arguments, and to use arguments to arrive at rationally justified belief.*

\_\_\_\_ 3. Phil./Sem. Sys: ENG 103; PHI 101, 103, 104, 107, 108, 205, 206.

**II. Natural Sciences & Mathematics (10): This part of core will be satisfied with completion of required biology and major related courses.**

*Goal 8: Students will demonstrate an understanding of the scientific method of inquiry and/or standard experimental techniques and knowledge of the natural sciences.*

**III. Social Sciences (9) - Select one course from each of the following categories.**

**(Each student must select at least one "D" course, i.e., a course dealing with cultural diversity.)**

*Goal 9: Students will demonstrate an understanding of history and heritage; the individual, culture, and society; and social institutions and processes.*

*Goal 10: Students will develop an awareness of and an appreciation for the importance of interacting effectively with people of diverse backgrounds. (This goal will be met in part through the requirement that students enroll in at least one course designated as a diversity course.)*

\_\_\_\_ 1. History and Heritage: HIS 126, 127, 135(D), 145(D), 165(D); ANT 251(D)

\_\_\_\_ 2. Social Institutions and Processes: CMM 181; ECN 141; IST 101(D); GOV 101, 161(D);

\_\_\_\_ 3. The Individual, Culture, Society: ANT 101(D); PSY 101; SOC 151(D).

### CORE-COMPONENT THREE - WRITING PORTFOLIO(6)

**I. Integrated Writing - Two writing intensive courses. (Identify).**

#1 \_\_\_\_\_ (taken after completion of 27 credit hours)

#2 \_\_\_\_\_ (#2 not required for transfers with core complete)

<b>Major Required Courses:</b>				<b>Number of Transfer Credits - _____</b>	
<b>Course</b>	<b>Credit</b>	<b>Semester taken</b>	<b>Grade / Trans. / Exempt</b>	<b>Notes</b>	
<b>A. Foundations of Biology</b>				<b>8 Credits (BIO 211 requires grade of C or higher)</b>	
BIO 211 General Biology I	4				
BIO 212 General Biology II	4				
BIO 231 Research Methods I BIO 232 Research Methods II	3 3				
<b>B. Cellular/Molecular Biology</b>				<b>One course from each of three categories 11 – 12 Credits</b>	
BIO 321 Genetics	4				
BIO 327 Cell Biology	4				
<b>C. Population Biology</b>					
BIO 323 Principles of Ecology	4				
BIO 329 Evolution	3				
<b>D. Structure/Function</b>				<b>AND... 4 Credits  One course of these three 4 Credits</b>	
BIO 322 Developmental Biology	4				
BIO 324 Animal Physiology	4				
<b>E. Organismal Biology</b>					
BIO 325 Botany	4				
<b>AND...</b>					
BIO 432 Principles of Microbiology	4				
BIO 436 Biology of Vertebrates	4				
BIO 437 Biology of Invertebrates	4				
<b>F. Upper Level Biology Electives</b>				<b>Any 300 or 400 level courses (Including those not taken for Categories B-E above) 11 - 12 Credits</b>	
BIO					
BIO					
BIO					
BIO					
<b>G. Senior Experience</b>				<b>One course of these three 3 Credits</b>	
BIO 450 Senior Research in Biology	3				
BIO 495 Senior Seminar BIO 470 Practicum in Biology	3 3				
<b>BIOLOGY TOTAL</b>	<b>47-49</b>				
<b>Major Related Courses:</b>					
<b>Chemistry</b>					
CHE 211 General Chemistry I	4			<b>16 Credits</b>  (Must take MAT124 or place higher in math than MAT124 to take Physics 151/152)	
CHE 212 General Chemistry II	4				
<b>Physics</b>					
PHY 151 General Physics I	4				
PHY 152 General Physics II	4				
<b>OR</b>					
PHY 261 Physics I	4				
PHY 262 Physics II	4				
<b>Mathematics</b>					
MAT 112, PSY/SOC 211 Basic Stats.	3			<b>One course 3 Credits</b>	
<b>OR</b>					
MAT 201 Calculus I	3				
<b>MAJOR RELATED TOTAL</b>	<b>19</b>				
<b>TOTAL REQUIRED</b>	<b>66-68</b>				

**Major Honors:** UC BIO GPA 3.4, Overall GPA 3.0, BIO 450, Student Research Day Presentation (or similar venue), Dept. Activities, Dept. Consideration, **Apply by April 1<sup>st</sup> to Chair in writing**