



**ADVISING WORKSHEET**  
**BACHELOR OF ARTS DEGREE**  
**MAJOR IN BIOLOGY**  
**General Bulletin 2013-2015**

TRANSFER INSTITUTION(S):  
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Name \_\_\_\_\_

Student ID # \_\_\_\_\_

**GENERAL EDUCATION REQUIREMENTS – SEE ATTACHED PAGE FOR SPECIFIC COURSES**

General Education Category	Course #	Credits	Grade	Semester	Equivalent
<b>Category I: Global Academic Skills</b> (9 credits) A. Mathematics (3 credits) <i>M 171 or STAT 216 – Major requirement</i> B. English (3 credits) C. Communication & Information Literacy (3 credits)					
	WRIT 101				
<b>Category II: Natural Sciences</b> (7 credits) 2 lectures (6 credits) & 1 lab (1 credit) (1 life science & 1 physical science & 1 lab)  <i>BIOB 160/161 &amp; CHMY 141 – Major requirements</i>					
<b>Category III: Social Sciences and History</b> (6 credits) A. Social Science (3 credits) B. History (3 credits)					
<b>Category IV: Cultural Diversity</b> (3 credits)					
<b>Category V: Arts &amp; Humanities</b> (6 credits) A. Fine Arts (3 credits) B. Humanities (3 credits)					

*A minimum grade of "C-" is required in all General Education courses.*

*Note: Certain degrees may require a minimum grade of "C" in General Education courses.*

*Students should consult with their advisors to determine if specific courses are necessary in order to satisfy the General Education requirements within this program.*

*Certain courses in this program have prerequisites; students should check the course descriptions in the General Bulletin for required prerequisites.*

**Reviewed:**

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# GENERAL EDUCATION REQUIREMENTS

## CATEGORY I: GLOBAL ACADEMIC SKILLS 9 credits

*Students are required to take one course from each subcategory*

### Subcategory A - Mathematics 3 credits

M	105	Contemporary Mathematics	3
M	114	Extended Technical Mathematics	3
M	121	College Algebra	3
M	122	College Trigonometry	3
M	131	Mathematics for Elementary Teachers II	3
M	143	Finite Mathematics	4
<b>M</b>	<b>171</b>	<b>Calculus I</b>	<b>4</b>

STAT	141	Introduction to Statistical Concepts	3
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<b>STAT</b>	<b>216</b>	<b>Introduction to Statistics</b>	<b>4</b>
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### Subcategory B - English 3 credits

WRIT	101	College Writing I	3
WRIT	121	Introduction to Technical Writing	3
WRIT	122	Introduction to Business Writing	3
WRIT	201	College Writing II	3
WRIT	220	Business & Professional Writing	3
WRIT	221	Intermediate Technical Writing	3

### Subcategory C - Communication & Information Literacy 3 credits

BMIS	150	Computer Literacy	3
COMX	111	Introduction to Public Speaking	3
COMX	115	Introduction to Interpersonal Communication	3
LSCI	125	Research in the Information Age	3

## CATEGORY II: NATURAL SCIENCES 6 cr. lecture & 1 cr. lab

*Students are required to take one course from each subcategory and at least one corresponding lab or SCIN 101, 102, 103 & 104*

### Subcategory A – Life Sciences 3-4 credits

BIOB	101	Discover Biology	3
BIOB	102	Discover Biology Lab	1
<b>BIOB</b>	<b>160</b>	<b>Principles of Living Systems</b>	<b>3</b>
<b>BIOB</b>	<b>161</b>	<b>Principles of Living Systems Lab</b>	<b>1</b>

### Subcategory B – Physical Sciences 3-4 credits

ASTR	110	Introduction to Astronomy	3
ASTR	111	Introduction to Astronomy Lab	1
CHMY	121	Introduction to General Chemistry	3
CHMY	122	Introduction to General Chemistry Lab	1
<b>CHMY</b>	<b>141</b>	<b>College Chemistry I</b>	<b>3</b>
<b>CHMY</b>	<b>142</b>	<b>College Chemistry Laboratory I</b>	<b>1</b>
GEO	101	Introduction to Physical Geology	3
GEO	102	Introduction to Physical Geology Laboratory	1
GPHY	112	Introduction to Physical Geography Lab	1
GPHY	111	Introduction to Physical Geography	3
PHSX	103	Our Physical World	3
PHSX	104	Our Physical World Lab	1
PHSX	205	College Physics I	3
PHSX	206	College Physics I Lab	1
PHSX	105	Fundamentals of Phys Sci	3
PHSX	106	Fundamentals of Phys Sci Lab	1

### Subcategories A and B – Integrated Sciences 7 credits

SCIN	101, 102, 103 & 104	Integrated Sciences	3, ½, 3, ½
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## CATEGORY III: SOCIAL SCIENCES AND HISTORY 6 credits

*Students are required to take one course from each subcategory*

### Subcategory A – Social Sciences 3 credits

ANTY	217	Physical Anthropology & Archeology	3
BGEN	105	Introduction to Business	3
COMX	106	Communicating in a Dynamic Workplace	3
ECNS	201	Principles of Microeconomics	3
ECNS	202	Principles of Macroeconomics	3
EDU	105	Education and Democracy	3
GPHY	141	Geography of World Regions	3
HTH	110	Personal Health and Wellness	3
PSCI	210	Introduction to American Government	3
PSCI	220	Introduction to Comparative Government	3
PSYX	100	Introduction to Psychology	3
PSYX	231	Human Relations	3
SOCI	101	Introduction to Sociology	3
SOCI	201	Social Problems	3

## Subcategory B - History 3 credits

HSTA	101	American History I	3
HSTA	102	American History II	3
HSTR	101	Western Civilization I	3
HSTR	102	Western Civilization II	3
HSTR	103	Honors Western Civilization I	3
HSTR	104	Honors Western Civilization II	3
PSCI	230	Introduction to International Relations	3

## CATEGORY IV: CULTURAL DIVERSITY 3 credits

A&SC/WGSS	274	Women, Culture, and Society	3
ANTY	220	Culture and Society	3
ARTH	160	Global Visual Culture	3
COMX	212	Introduction to Intercultural Communication	3
GPHY	121	Human Geography	3
HTH	270	Global Health Issues	3
LIT	230	World Literature Survey	3
MUSI	207	World Music	3
NASX	105	Introduction to Native American Studies	3
NASX	205	Native Americans in Contemporary Society	3
PHL	271	Philosophy & Religion of India	3
PHL	272	Philosophy & Religion of China/Tibet/Japan	3
REHA	201	Introduction to Diversity in Counseling	3
RLST	170	The Religious Quest	3
SPNS	150	The Hispanic Tradition	3

## CATEGORY V: ARTS & HUMANITIES 6 credits

*Students are required to take one course from each subcategory*

### Subcategory A – Fine Arts 3 credits

ARTZ	101	Art Fundamentals	3
ARTZ	105	Visual Language-Drawing	3
ARTZ	131	Ceramics for Non-majors	3
CRWR	240	Intro Creative Writing Workshop	3
FILM	160	Introduction to World Cinema	3
LIT	270	Film & Literature	3
MART	260	Computer Presentation and Animation	3
MUSI	101	Enjoyment of Music	3
MUSI	114	Band: MSUB Symphonic	1
MUSI	131	Jazz Ensemble I: MSUB	1
MUSI	147	Choral Ensemble: University Chorus	1
THTR	101	Introduction to Theatre	3
THTR	120	Introduction to Acting I	3

### Subcategory B - Humanities 3 credits

ARTH	150	Introduction to Art History	3
HONR	111	Perspectives and Understanding	3
LIT	110	Introduction to Literature	3
LIT	240	The Bible as Literature	3
PHL	110	Introduction to Ethics	3
PHL	111	Philosophies of Life	3

**Total 31**

Course	Credits	Grade	Semester	Equivalent
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*A minimum grade of C or better is required in all major coursework*

### Biology Requirements

*BIOB	160	Principles of Living Systems	3			
*BIOB	161	Principles of Living Systems Lab	1			
BIOB	170	Principles of Biological Diversity	3			
BIOB	171	Principles of Biological Diversity Lab	1			
BIOB	260	Cellular and Molecular Biology	3			
BIOB	261	Cellular and Molecular Biology Lab	1			
BIOB	375	General Genetics	3			
BIOB	376	General Genetics Lab	1			
BIOE	370	General Ecology	3			
BIOE	371	General Ecology Lab	1			
BIOB	425	Advanced Cell and Molecular Biology	3			
BIOB	426	Advanced Cell and Molecular Biology Lab	1			
BIOB	490	Undergraduate Research	2			
BIOB	499	Senior Thesis/Capstone	1			

### Unrestricted Biology electives (15 credits – at least 7 credits in upper division courses)


*\*BIOB 101/102 does not qualify in this category.*

**Biology Total**

**42**

### Chemistry Requirements

*CHMY	141	College Chemistry I	3			
*CHMY	142	College Chemistry Laboratory I	1			
CHMY	143	College Chemistry II	3			
CHMY	144	College Chemistry Laboratory II	1			
CHMY	211	Elements of Organic Chemistry	3			
CHMY	212	Elements of Organic Chemistry Lab	1			
BCH	380	Biochemistry	3			
BCH	381	Biochemistry Lab	1			

**Chemistry Total**

**16**

### Mathematics or Statistics Requirement (choose one of the following)

*M	171	Calculus I	4			
*STAT	216	Introduction to Statistics	4			

**Math or Statistics Total**

**4**

\*May satisfy Academic Foundations/General Education requirements.

Course	Credits	Grade	Semester	Equivalent
<b>Foreign Language Requirement (2 semesters/1full year of the same language)</b>				

<b>Restricted Electives selected in consultation with faculty advisor (6 credits)</b>				

<b>Electives</b>				

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**BACHELOR OF ARTS DEGREE IN BIOLOGY**

Categories	Credits	Earned	Remaining
General Education	31	_____	_____
Biology Requirements	**38	_____	_____
Chemistry Requirements	***13	_____	_____
Math or Statistics Requirement	***1	_____	_____
Foreign Language Requirement	8	_____	_____
Restricted Electives	6	_____	_____
Electives (variable)	17/V	_____	_____
Total	120	_____	_____

**\*\* 4 credits that also satisfy General Education requirements are not included in the total number of credits.**

**\*\*\*3 credits that also satisfy General Education requirements are not included in the total number of credits.**

The total number of elective credits required for the degree will be determined by the number of courses a student elects to take which fulfill both the General Education requirements and the major requirements. Electives should be chosen in consultation with an academic advisor.

**It is the student's responsibility to know and meet the requirements for graduation.**

**A minimum of 36 credits must be upper division classes (300 and above)**

**NOTES:**