



**ADVISING WORKSHEET**  
**BACHELOR OF SCIENCE DEGREE MAJOR IN BIOLOGY**  
**TEACHING LICENSURE OPTION**  
**General Bulletin 2017-2018**

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>STAT 141 or 216 and M 171 – Major Requirements</i>					
B. English (3 credits) #	WRIT 101				
C. Communication & Information Literacy (3 credits) #	COMX 111 or 115				
<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)	EDU 105				
A. Social Science (3 credits)					
B. History (3 credits) #	HSTA 101 or 102				
<b>Category IV: Cultural Diversity</b> (3 credits) #	NASX 105 or 205				
<b>Category V: Arts &amp; Humanities</b> (6 credits)					
A. Fine Arts (3 credits)					
B. Humanities (3 credits)					

A minimum grade of “C” required in all General Education courses.  
 # Required for Admission to the Educator Preparation Program

**Reviewed:**  
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## GENERAL EDUCATION REQUIREMENTS

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### 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	130	Mathematics for Elementary Teachers I	3
M	143	Finite Mathematics	4
M	161	Survey of Calculus	3
<b>M</b>	<b>171</b>	<b>Calculus I</b>	<b>4</b>
STAT	141	Introduction to Statistical Concepts	3
<b>STAT</b>	<b>216</b>	<b>Introduction to Statistics</b>	<b>4</b>

#### 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

<b>COMX</b>	<b>111</b>	<b>Introduction to Public Speaking</b>	<b>3</b>
<b>OR</b>			
<b>COMX</b>	<b>115</b>	<b>Introduction to Interpersonal Communication</b>	<b>3</b>

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### 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 Integrated Sciences*

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

BIOB	101	Discover Biology	3
BIOB	102	Discover Biology Lab	1
BIOB	121	Fundamentals of Biology for Allied Health	3
BIOB	122	Fund of Biology: Evolution, Ecology, and Biodiversity	3
BIOB	123	Fund of Biology: The Nature of Nutrition	3
<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	111	Introduction to Physical Geography	3
GPHY	112	Introduction to Physical Geography Lab	1
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 Physical Science	3
PHSX	106	Fundamentals of Physical Science Lab	1

#### Integrated Sciences

SCIN	101, 102, 103, 104	Integrated Sciences	3, 1, 3, 1
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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
<b>EDU</b>	<b>105</b>	<b>Education and Democracy</b>	<b>3</b>
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

<b>HSTA</b>	<b>101</b>	<b>American History I</b>	<b>3</b>
<b>OR</b>			
<b>HSTA</b>	<b>102</b>	<b>American History II</b>	<b>3</b>

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### CATEGORY IV: CULTURAL DIVERSITY 3 credits

<b>NASX</b>	<b>105</b>	<b>Introduction to Native American Studies</b>	<b>3</b>
<b>OR</b>			
<b>NASX</b>	<b>205</b>	<b>Native Americans in Contemporary Society</b>	<b>3</b>

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### 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
PHOT	154	Exploring Digital Photography	3
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
PHL	254	People and Politics	3

Course		Credits	Grade	Semester	Equivalent
<i>A minimum grade of C or better is required in all major coursework</i>					
<b>Professional Education Core</b>					
*#EDU	105	Education and Democracy	3		
^#EDU	220/ 220L	Human Growth and Development/ Lab (45 hour practicum required)	3		
#EDU	221	Educational Psychology and Measurement	3		
^#EDSP	204	Introduction to Teaching Exceptional Learners (15 hour practicum required)	3		
#HTH	412	Drugs and Alcohol	1		
EDU	333	Reading and Writing Across the Curriculum	3		
EDU	380	Introduction to Curriculum Planning/Practice	2		
EDU	354	Secondary Junior Field	2		
EDU	397G	Methods: 5-12 Science	2		
EDU	406	Philosophical, Legal & Ethical Issues in Education	3		
EDU	495C	Student Teaching: 5-12	9		

**#Required for Admission to the Educator Preparation Program**

**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		
BIOE	370	General Ecology	3		
BIOE	371	General Ecology Lab	1		
BIOB	375	General Genetics	3		
BIOB	376	General Genetics Lab	1		
BIOB	498	Internship/Cooperative Education	2		
BIOB	499	Capstone	1		
		Biology electives selected in consultation with an advisor.	22		

**Biology Total**

**45**

**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		

**Chemistry Requirements (continued)**

CHMY	211	Elements of Organic Chemistry	3			
CHMY	212	Elements of Organic Chemistry Laboratory	1			
CHMY	311	Analytical Chemistry – Quantitative Analysis	3			
CHMY	312	Analytical Chemistry Laboratory – Quantitative Analysis	1			
BCH	380	Biochemistry	3			
BCH	381	Biochemistry Lab	1			

**Chemistry Total** **20**

*Students wishing to obtain a minor in Chemistry will need to take CHMY 321/322 and 323/324 instead of CHMY 211/212.*

**Mathematics and Statistics Requirement**

*M	171	Calculus I	4			
*STAT	141	Introduction to Statistical Concepts	3			
<b>OR</b>						
*STAT	216	Introduction to Statistics	4			

**Mathematics/Statistics Total** **7-8**

**Physics Requirement (Choose one Physics course with lab)**

* PHSX	205	College Physics I	3			
* PHSX	206	College Physics I Laboratory	1			
<b>OR</b>						
PHSX	220	Physics I	3			
PHSX	221	Physics I Laboratory	1			

**Physics Total** **4**

**BACHELOR OF SCIENCE DEGREE IN BIOLOGY – TEACHING LICENSURE OPTION**

Categories	Credits	Earned	Remaining
General Education	31	_____	_____
Professional Education Core	**31	_____	_____
Biology Requirements	***41	_____	_____
Chemistry Requirements	**17	_____	_____
Math/Statistics Requirements	**4-5	_____	_____
Physics Requirements	4	_____	_____
<b>Total</b>	<b>128-129</b>	_____	_____

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

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

**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:**

^ Course requires a completed Federal Criminal Background Check in order to complete the required practicum hours within the class. Packets may be picked up at either the Advising Center in McMullen Hall or in the College of Education, or can be printed off the website at <http://www.msubillings.edu/coe/etp/FieldExper/FingerprintInfo.htm>. The background check is only valid for 24 months.