



**ADVISING WORKSHEET**  
**BACHELOR OF SCIENCE DEGREE MAJOR IN MATHEMATICS**  
**TEACHING LICENSURE OPTION – SINGLE SUBJECT ENDORSEMENT**  
**GENERAL BULLETIN 2023-2024**

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)	#				
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)	#				
<b>Category III: Social Sciences and History</b> (6 credits) A. Social Science (3 credits)	EDU 105				
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

### 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	140	College Math for Healthcare	3
M	143	Finite Mathematics	4
M	161	Survey of Calculus	3
M	171	Calculus I	4
STAT	141	Introduction to Statistical Concepts	3
STAT	216	Introduction to Statistics	4

#### 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

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

COMX	111	<i>Introduction to Public Speaking</i>	3
<i>OR</i>			
COMX	115	<i>Introduction to Interpersonal Communication</i>	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 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	123	Fund of Biology: The Nature of Nutrition	3
BIOB	160	Principles of Living Systems	3
BIOB	161	Principles of Living Systems Lab	1
SCIN	101	Integrated Sciences I	3
SCIN	102	Integrated Sciences I Lab	1
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
CHMY	141	College Chemistry I	3
CHMY	142	College Chemistry Laboratory I	1
GEO	101	Introduction to Physical Geology	3
GEO	102	Introduction to Physical Geology Laboratory	1
GPHY	262	Spatial Sciences Technology & Applications	3
GPHY	263	Spatial Sciences & Technology 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
SCIN	103	Integrated Sciences II	3
SCIN	104	Integrated Sciences II Lab	1

### 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 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
SOCI	101	Introduction to Sociology	3
SOCI	201	Social Problems	3

#### Subcategory B - History 3 credits

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

### CATEGORY IV: CULTURAL DIVERSITY 3 credits

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

### CATEGORY V: ARTS & HUMANITIES 6 credits

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

#### Subcategory A – Fine Arts 3 credits

ARTZ	105	Visual Language-Drawing	3
ARTZ	106	Visual Language-2-D Foundations	3
ARTZ	108	Visual Language-3-D Foundations	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
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

#### 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	213	Montana 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		
EDSP	410	Supporting Diverse Learners through Collaboration	3		
#HTH	412	Drugs and Alcohol	1		
EDU	333	Reading and Writing Across the Curriculum	3		
EDU	343	Strategies for Managing Diverse Learners	2		
EDU	354	Secondary Junior Field	2		
EDU	366	Math Practicum	3		
EDU	381	Curriculum Theory & Design	3		
EDU	383	Assessment in Education	3		
EDU	406	Philosophical, Legal & Ethical Issues in Education	3		
EDU <b>Or</b>	495A 495C	Student Teaching: K-12 Student teaching: 5-12	9		
EDU	497B	Methods: 9-12 Mathematics	3		

\*May satisfy General Education Requirement

#Required for Admission to the Educator Preparation Program

^ 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>.

#### Mathematics Required Courses

*M	171	Calculus I	4		
M	172	Calculus II	4		
M	242	Methods of Proof	3		
M	273	Multivariable Calculus	4		
M	305	Discrete Structures I	4		
M	329	Modern Geometry	3		
M	333	Linear Algebra	4		
M	431	Abstract Algebra I	3		
M	471	Mathematical Analysis	3		
*STAT	216	Introduction to Statistics	4		
STAT	341	Introduction to Probability and Statistics	4		

\*May satisfy General Education requirements.

**Concentration Electives**

Select 6-8 credits from below. Other courses may be chosen in consultation with an advisor						
CSCI	100	Intro to Programming	3			
CSCI	116	Intro to Python Programming	3			
M	130	Math for Elementary Teachers I	3			
M	131	Math for Elementary Teachers II	3			
PHSX	220	Physics I	3			
PHSX	221	Physics I Lab	1			
PHSX	232	Physics II & Thermo	3			
PHSX	233	Physics II and Thermo Lab	1			

**Electives**


**BACHELOR OF SCIENCE DEGREE IN MATHEMATICS – TEACHING LICENSURE OPTION – SINGLE SUBJECT ENDORSEMENT**

<b>Categories</b>	<b>Credits</b>	<b>Earned</b>	<b>Remaining</b>
General Education	31	_____	_____
Professional Education Core	**47	_____	_____
Mathematics Major	**40	_____	_____
Concentration Electives	6-8	_____	_____
Electives (may vary)	V	_____	_____
Total	120	_____	_____

\*\*Three (3) credits that also satisfy General Education requirements and are not included in the total 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).**

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**NOTES:**