



ADVISING WORKSHEET

**BACHELOR OF SCIENCE DEGREE MAJOR IN MATHEMATICS
TEACHING LICENSURE OPTION – SINGLE SUBJECT ENDORSEMENT
GENERAL BULLETIN 2021-2022**

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
Category I: Global Academic Skills (9 credits) A. Mathematics (3 credits) B. English (3 credits) C. Communication & Information Literacy (3 credits) #	#				
	#	WRIT 101			
	#	COMX 111 or 115			
Category II: Natural Sciences (7 credits) 2 lectures (6 credits) & 1 lab (1 credit) (1 life science & 1 physical science & 1 lab)	#				
Category III: Social Sciences and History (6 credits) A. Social Science (3 credits) B. History (3 credits) #		EDU 105			
	#	HSTA 101 or 102			
Category IV: Cultural Diversity (3 credits) #	#	NASX 105 or 205			
Category V: Arts & Humanities (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:

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
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

COMX 111 Introduction to Public Speaking 3

OR

COMX 115 Introduction to Interpersonal Communication 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	122	Fund of Biology: Evolution, Ecology, and Biodiversity	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
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

Integrated Sciences

SCIN 101, 102, 103, 104 Integrated Sciences 3, 1, 3, 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
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
SOCI	101	Introduction to Sociology	3
SOCI	201	Social Problems	3

Subcategory B - History 3 credits

HSTA 101 American History I 3

OR

HSTA 102 American History II 3

CATEGORY IV: CULTURAL DIVERSITY 3 credits

NASX 105 Introduction to Native American Studies 3

OR

NASX 205 Native Americans in Contemporary Society 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	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
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	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
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A minimum grade of C or better is required in all major coursework

Professional Education Core

*#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	343	Strategies for Managing Diverse Learners	2			
EDU	354	Secondary Junior Field	2			
EDU	381	Curriculum Theory & Design	3			
EDU	383	Assessment in Education	3			
EDU	406	Philosophical, Legal & Ethical Issues in Education	3			
EDU	494	Seminar/Workshop	1			
EDU	495A Or 495C	Student Teaching: K-12 Student teaching: 5-12	9			
EDU	497B	Methods: 9-12 Mathematics	3			
EDU	497R	Methods: 5-8 Mathematics	3			
EDSP	410	Supporting Diverse Learners through Collaboration	3			

#Required for Admission to the Educator Preparation Program

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

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Categories	Credits	Earned	Remaining
General Education	31	_____	_____
Professional Education Core	**45	_____	_____
Mathematics Major	**40	_____	_____
Concentration Electives	6-8	_____	_____
Electives (may vary)	V	_____	_____
Total	128	_____	_____

**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).**

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.msbillings.edu/coe/etp/FieldExper/FingerprintInfo.htm>. The background check is only valid for 24 months.