montana state university BILLINGS

ADVISING WORKSHEET

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

Montana State University Billings Advising and Career Services Phone: 406-657-2240 Fax: 406-657-2302 advising@msubillings.edu www.msubillings.edu/advise/

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) #	WRIT 101				
C. Communication & Information Literacy (3 credits) #	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)	EDU 105				
B. History (3 credits) #	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

Rev	iewed	:				

GENERAL EDUCATION REQUIREMENTS

				•				
M	114	Extended Technical Mathematics		3	CATEGO	ORY III:	SOCIAL SCIENCES AND HISTORY	6 CREDITS
M	121	College Algebra		3	Students	are requ	uired to take one course from each sub	category
M	122	College Trigonometry		3	Subcate	gory A -	- Social Sciences	3 credits
M	130	Mathematics for Elementary Teachers		3	ANTY	217	Physical Anthropology & Archeolog	gy 3
M	140	College Math for Healthcare		3	BGEN	105	Introduction to Business	3
M	143	Finite Mathematics		4	COMX	106	Communicating in a Dynamic Work	
M	161	Survey of Calculus		3	ECNS	201	Principles of Microeconomics	3
M	171	Calculus I			ECNS	202	Principles of Macroeconomics	3
STAT STAT	141 216	Introduction to Statistical Concepts		3	EDU	105	Education and Democracy	3
SIAI	210	Introduction to Statistics	4	4	GPHY	141	Geography of World Regions	3
Subcata	gory R	- English	3 credit	·e	HTH	110	Personal Health and Wellness	3
WRIT	101	College Writing I		3	PSCI	210	Introduction to American Governme	
WRIT	121	Introduction to Technical Writing		3	PSCI	220	Introduction to Comparative Govern	
WRIT	122	Introduction to Business Writing		3	PSYX	100	Introduction to Psychology	3
WRIT	201	College Writing II		3	SOCI	101	Introduction to Sociology	3
WRIT	220	Business & Professional Writing		3	SOCI	201	Social Problems	3
WRIT	221	Intermediate Technical Writing		3	.	ъ	***	2 111
*******		miermenius remineur vriming	•				History	3 credits
Subcate	gory C-	Communication & Information Literacy	3 cred	lits	HSTA	101	American History I	3
COMX		Introduction to Public Speaking		3	OR	102	Annania and History H	•
OR					HSTA	102	American History II	3
COMX	115	Introduction to Interpersonal Commu	nicatio	n3	Cympag	DAY IXI.	Current a Divinogram	2 1:1-
		•					CULTURAL DIVERSITY	3 credits
CATEGO	ORY II:	NATURAL SCIENCES 6 cr. lecture &	1 cr. lal	b	NASX	105	Introduction to Native American St	udies 3
Students	are reg	uired to take one course from each subca	tegory a	and	OR NACY	205	No.	
		esponding lab <u>or</u> Integrated Sciences	0 ,		NASX	205	Native Americans in Contemporary	Society 3
Subtate	gory A ·	 Life Sciences 3-4 	4 credit	:s	C. mn co	X 7	A none O Harris arrows	ć 1''
BIOB	gory A - 101	- Life Sciences 3-4 Discover Biology		3 3			ARTS & HUMANITIES	6 credits
		Discover Biology Discover Biology Lab	:		Students	are requ	uired to take one course from each sub	category
BIOB	101	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He	ealth .	3	Students Subcate	are requ	uired to take one course from each sub - Fine Arts	ocategory 3 credits
BIOB BIOB	101 102	Discover Biology Discover Biology Lab	ealth .	3 1 3	Students Subcate ARTZ	are requ gory A - 101	uired to take one course from each sub - Fine Arts Art Fundamentals	3 credits
BIOB BIOB	101 102 121	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity	ealth (3 1 3 3	Students Subcate ARTZ ARTZ	are requ gory A - 101 105	uired to take one course from each sub - Fine Arts Art Fundamentals Visual Language-Drawing	3 credits 3
BIOB BIOB BIOB	101 102 121 122 123	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti	ealth and	3 1 3 3 3	Students Subcate ARTZ ARTZ ARTZ	are requ gory A - 101 105 106	uired to take one course from each sub - Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations	3 credits 3 3 3
BIOB BIOB BIOB BIOB BIOB	101 102 121 122 123 160	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems	ealth (and	3 1 3 3 3 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ	are requ gory A - 101 105 106 108	uired to take one course from each sub- - Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations	3 credits 3 3 3 3
BIOB BIOB BIOB	101 102 121 122 123	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti	ealth (and	3 1 3 3 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ	are requ gory A - 101 105 106 108 131	uired to take one course from each sub- - Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors	3 credits 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB	101 102 121 122 123 160 161	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab	ealth and	3 1 3 3 3 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR	are requ gory A - 101 105 106 108 131 240	aired to take one course from each sub- - Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop	3 credits 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR	101 102 121 122 123 160 161	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy	ealth and	3 1 3 3 3 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM	are requested ar	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR	101 102 121 122 123 160 161 110	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab	ealth and	3 1 3 3 3 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT	are requested ar	uired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY	101 102 121 122 123 160 161 110 111 121	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry	ealth and on	3 1 3 3 3 3 1 3 1 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART	are requested as a result of the second seco	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY	101 102 121 122 123 160 161 110 111 121 122	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab	ealth and	3 1 3 3 3 3 1 3 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI	are required and required are required are required at 101 105 106 108 131 240 160 270 260 101	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY	101 102 121 122 123 160 161 110 111 121 122 141	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I	ealth and	3 1 3 3 3 3 1 3 1 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI	are required and required are required at 101 105 106 108 131 240 160 270 260 101 114	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic	3 credits 3 3 3 3 3 3 3 3 3 3 1
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY	101 102 121 122 123 160 161 110 111 121 122 141 142	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I	ealth and ion	3 1 3 3 3 3 1 3 1 3 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI	are required and required are required at 101 105 106 108 131 240 160 270 260 101 114 131	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB	3 credits 3 3 3 3 3 3 3 3 5 5 7 5 7 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY CHMY	101 102 121 122 123 160 161 110 111 121 122 141 142 101	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology	ealth and ion	3 1 3 3 3 3 3 1 3 1 3 1 3 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI	are required and required are required at 101 105 106 108 131 240 160 270 260 101 114 131 147	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus	3 credits 3 3 3 3 3 3 3 3 5 5 7 5 7 5 8 1
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Laboratory	ealth and on a	3 1 3 3 3 3 1 3 1 3 1 3 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI PHOT	are required and required are required are required at 101 105 106 108 131 240 160 270 260 101 114 131 147 154	aired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography	3 credits 3 3 3 3 3 3 3 3 5 5 1 1 5 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Laboratory Spatial Sciences Technology & Applica	ealth and on a	3 1 3 3 3 3 1 3 1 3 1 3 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI PHOT THTR	are required and required are required are required at 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101	rired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre	3 credits 3 3 3 3 3 3 3 3 5 5 1 5 1 5 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Spatial Sciences Technology & Applica Spatial Sciences & Technology Laboratory Spati	ealth and ion	3 1 3 3 3 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI PHOT	are required and required are required are required at 101 105 106 108 131 240 160 270 260 101 114 131 147 154	aired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography	3 credits 3 3 3 3 3 3 3 3 5 5 1 1 5 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Spatial Sciences Technology & Applications Spatial Sciences & Technology Laboratory Lab Our Physical World	ealth and ion ion	3 1 3 3 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI PHOT THTR THTR	are required from the state of	aired to take one course from each sub- Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I	3 credits 3 3 3 3 3 3 3 3 5 5 1 5 1 5 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Spatial Sciences Technology & Application Spatial Sciences & Technology Lab Our Physical World Our Physical World Our Physical World Lab	ealth and son	3 1 3 3 3 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI PHOT THTR THTR	are required from the state of	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I	3 credits 3 3 3 3 3 3 3 3 5 5 1 5 1 5 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX PHSX	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104 205	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Spatial Sciences Technology & Application Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I	ealth and ion ion	3 1 3 3 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI THTR THTR Subcate ARTH	are required and required are required are required at 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 120 120 120 120 120 120 120 120	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I Humanities Introduction to Art History	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX	101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Spatial Sciences Technology & Application Spatial Sciences & Technology Lab Our Physical World Our Physical World Our Physical World Lab	ealth and ion ion	3 1 3 3 3 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI PHOT THTR THTR	are required and required are required are required at 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 150 150	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX PHSX PHSX	101 102 121 122 123 160 161 110 111 122 141 142 101 102 262 263 103 104 205 206	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Labo Spatial Sciences Technology & Applica Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I College Physics I Lab	ealth and ion ion	3 1 3 3 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR	are required and required are required are required as a second and a second are required as a s	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I Humanities Introduction to Art History Perspectives and Understanding	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX PHSX PHSX PHSX	101 102 121 122 123 160 161 110 111 122 141 142 101 102 262 263 103 104 205 206	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Labo Spatial Sciences Technology & Applica Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I College Physics I Lab	ealth and and and arratory ations	3 1 3 3 3 3 3 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT	are required from the second s	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX PHSX PHSX PHSX	101 102 121 122 123 160 161 110 111 122 141 142 101 102 262 263 103 104 205 206	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Labo Spatial Sciences Technology & Applica Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I College Physics I Lab	ealth and ion ion	3 1 3 3 3 3 3 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT LIT	are required from the second s	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Theatre Introduction to Acting I Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature Montana Literature	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX PHSX PHSX PHSX	101 102 121 122 123 160 161 110 111 122 141 142 101 102 262 263 103 104 205 206	Discover Biology Discover Biology Lab Fundamentals of Biology for Allied He Fund of Biology: Evolution, Ecology, a Biodiversity Fund of Biology: The Nature of Nutriti Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry Lab College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Labo Spatial Sciences Technology & Applica Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I College Physics I Lab	ealth and and and arratory ations	3 1 3 3 3 3 3 1 3 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1 1 3 1	Students Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT LIT PHL	are required from the second s	Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations Visual Language-3-D Foundations Ceramics for Non-majors Intro Creative Writing Workshop Introduction to World Cinema Film & Literature Computer Presentation and Animatic Enjoyment of Music Band: MSUB Symphonic Jazz Ensemble I: MSUB Choral Ensemble: University Chorus Exploring Digital Photography Introduction to Acting I Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature Montana Literature Introduction to Ethics	3 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

		Course	Credits	Grade	Semester	Equivalent
		A minimum grade of C or better is required	in all maj	or course	work	
Professional	Educatio	n Core	T	1		
*#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 O r	495A 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

Concentration Electives						
Select 6-8 c	credits from	below. Other courses may be chosen in consu	ltation witl	h an adv	isor	
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

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