

ADVISING WORKSHEET

BACHELOR OF SCIENCE DEGREE MAJOR IN MATHEMATICS TEACHING LICENSURE OPTION – SINGLE SUBJECT ENDORSEMENT GENERAL BULLETIN 2020-2021

| T | RANSF | ER IN | STIT | UTION | (S): |
|---|-------|-------|------|-------|------|
| _ | | | | | |
| - | | | | | |
| _ | | | | | |

Montana State University Billings Advising and Career Services Phone: 406-657-2240 Fax: 406-657-2302

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) | | | | | |
| | | | | | |
| | | | | | |
| 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

| Reviewed: | | |
|-----------|--|--|
| | | |
| | | |
| | | |
| | | |

GENERAL EDUCATION REQUIREMENTS

| CATEGO | RY I: (| GLOBAL ACADEMIC SKILLS | 9 credits | CATEGO | ORY III | SOCIAL SCIENCES AND HISTORY | 6 CREDITS |
|---|--|--|--|---|--|---|---|
| Students are required to take one course from each subc | | | category | Students | are reg | uired to take one course from each sub | category |
| Subcateg | gory A | - Mathematics | 3 credits | | | - Social Sciences | 3 credits |
| M | 105 | Contemporary Mathematics | 3 | ANTY | 217 | Physical Anthropology & Archeolog | gy 3 |
| M | 114 | Extended Technical Mathematics | 3 | BGEN | 105 | Introduction to Business | 3 |
| M | 121 | College Algebra | 3 | COMX | 106 | Communicating in a Dynamic Work | place 3 |
| M | 122 | College Trigonometry | 3 | ECNS | 201 | Principles of Microeconomics | 3 |
| M | 130 | Mathematics for Elementary Teacher | rs I 3 | ECNS | 202 | Principles of Macroeconomics | 3 |
| M | 140 | College Math for Healthcare | 3 | EDU | 105 | Education and Democracy | 3 |
| M | 143 | Finite Mathematics | 4 | GPHY | 141 | Geography of World Regions | 3 |
| M | 161 | Survey of Calculus | 3 | HTH | 110 | Personal Health and Wellness | 3 |
| M | 171 | Calculus I | 4 | PSCI | 210 | Introduction to American Governme | nt 3 |
| STAT | 141 | Introduction to Statistical Concepts | 3 | PSCI | 220 | Introduction to Comparative Govern | |
| STAT | 216 | Introduction to Statistics | 4 | PSYX | 100 | Introduction to Psychology | 3 |
| | | | | SOCI | 101 | Introduction to Sociology | 3 |
| Subcateg | | | 3 credits | SOCI | 201 | Social Problems | 3 |
| WRIT | 101 | College Writing I | 3 | | | | |
| WRIT | 121 | Introduction to Technical Writing | 3 | Subcate | gory B | - History | 3 credits |
| WRIT | 122 | Introduction to Business Writing | 3 3 | HSTA | 101 | American History I | 3 |
| WRIT | 201 | College Writing II | | OR | | · | |
| WRIT | 220 | Business & Professional Writing | 3 | HSTA | 102 | American History II | 3 |
| WRIT | 221 | Intermediate Technical Writing | 3 | | | , | |
| 0.1.4 | | | 2 14 | CATEGO | ORY IV: | CULTURAL DIVERSITY | 3 credits |
| Subcateg COMX | | Communication & Information Litera | • | NASX | 105 | Introduction to Native American St | udies 3 |
| | 111 | Introduction to Public Speaking | 3 | OR | | | |
| OR COMX | 115 | Introduction to Interpersonal Comm | nunication3 | NASX | 205 | Native Americans in Contemporary | Society 3 |
| CATEGO | DV II. | NATURAL SCIENCES 6 cr. lecture 8 | & 1 on lob | CATEGO | ORY V: | ARTS & HUMANITIES | 6 credits |
| | | | | G. 1 . | | wined to take one course from each auk | |
| | | | . 1 | Students | : are rea | uirea io iake one course irom each sui | categorv |
| | | uired to take one course from each sub- | category and | | | uired to take one course from each sub – Fine Arts | |
| at least o | ne corr | esponding lab <u>or</u> Integrated Sciences | | Subcate | | - Fine Arts | 3 credits |
| at least of Subcateg | ne corr gory A | esponding lab <u>or</u> Integrated Sciences – Life Sciences | 3-4 credits | Subcate ARTZ | egory A 101 | - Fine Arts Art Fundamentals | 3 credits |
| at least of Subcateg BIOB | ne corr g ory A - 101 | esponding lab <u>or</u> Integrated Sciences - Life Sciences Discover Biology | 3-4 credits | Subcate ARTZ ARTZ | gory A | Fine Arts Art Fundamentals Visual Language-Drawing | 3 credits 3 3 |
| at least of Subcateg BIOB BIOB | ne corr gory A - 101 102 | esponding lab <u>or</u> Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab | 3-4 credits 3 | Subcate ARTZ ARTZ ARTZ | 101 105 106 | - Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations | 3 credits 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB | ne corr gory A - 101 102 121 | esponding lab or Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I | 3-4 credits | Subcate ARTZ ARTZ ARTZ ARTZ | 101 105 106 108 | - Fine Arts Art Fundamentals Visual Language-Drawing Visual Language-2-D Foundations Visual Language-3-D Foundations | 3 credits 3 3 3 3 |
| at least of Subcateg BIOB BIOB | ne corr gory A - 101 102 | esponding lab or Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology | 3-4 credits 3 1 Health 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ | 101 105 106 108 131 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB | ne corr gory A 101 102 121 122 | esponding lab or Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity | 3-4 credits 3 1 Health 3 7, and 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR | 101 105 106 108 131 240 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB | ne corregory A 101 102 121 122 123 | esponding lab or Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr | 3-4 credits | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM | 101 105 106 108 131 240 160 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB | ne correspondent of the corres | esponding lab or Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems | 3-4 credits | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT | 101 105 106 108 131 240 160 270 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB | ne corregory A 101 102 121 122 123 | esponding lab or Integrated Sciences - Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr | 3-4 credits | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM | egory A 101 105 106 108 131 240 160 270 260 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB | ne corr gory A - 101 102 121 122 123 160 161 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab | 3-4 credits | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI | 101 105 106 108 131 240 160 270 260 101 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB BIO | ne corr gory A = 101 102 121 122 123 160 161 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy | 3-4 credits 3 1 Health 3 7, and 3 7ition 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI | 101 105 106 108 131 240 160 270 260 101 114 | - 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 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR | ne corr gory A : 101 102 121 122 123 160 161 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab | 3-4 credits 3 1 Health 3 7, and 3 1 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI | 101 105 106 108 131 240 160 270 260 101 114 131 | - 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 3 3 3 1 1 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY | ne corr gory A - 101 102 121 122 123 160 161 110 111 121 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry | 3-4 credits 3 1 Health 3 7, and 3 1 1 3 1 3 1 3 1 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI | 101 105 106 108 131 240 160 270 260 101 114 131 147 | - 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 3 3 1 1 1 5 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY | ne corr gory A - 101 102 121 122 123 160 161 110 111 121 122 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry Lab | 3-4 credits 3 1 Health 3 7, and 3 1 1 3 1 3 1 3 1 3 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI PHOT | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 | - 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 3 3 1 1 1 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY | ne corr gory A - 101 102 121 122 123 160 161 110 111 121 122 141 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I | 3-4 credits 3 1 Health 3 7, and 3 1 1 3 1 3 1 3 1 3 1 3 3 1 3 3 3 3 1 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI PHOT THTR | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 | - 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 3 5 5 1 1 5 1 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY | ne corr gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to Astronomy Lab Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I | 3-4 credits 3 1 Health 3 7, and 3 1 1 3 1 3 ab 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI PHOT | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 | - 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 3 3 1 1 1 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY CHMY | ne corr gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology | 3-4 credits 3 1 Health 3 7, and 3 1 1 3 1 3 ab 1 3 1 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI PHOT THTR | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 | - 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 3 3 3 1 1 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY CHMY GEO GEO | ne corr gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI FHOT THTR THTR | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 | - 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 - Humanities | 3 credits 3 3 3 3 3 3 3 3 3 5 5 1 1 3 3 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY | ne corr. gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lal Spatial Sciences Technology & Appl | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI THTR THTR Subcate ARTH | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 | - 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 - Humanities Introduction to Art History | 3 credits 3 3 3 3 3 3 3 3 3 5 5 1 1 5 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY | ne corr. gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI THTR THTR Subcate ARTH HONR | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 | - 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 - Humanities Introduction to Art History Perspectives and Understanding | 3 credits 3 3 3 3 3 3 3 3 3 3 5 1 1 5 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX | ne corr. gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab Our Physical World | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 3 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 egory B 150 111 | - 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 - Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature | 3 credits 3 3 3 3 3 3 3 3 3 3 5 1 1 5 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX | ne corr. gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab Our Physical World Our Physical World | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT LIT | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 150 111 110 213 | - 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 - Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature Montana Literature | 3 credits 3 3 3 3 3 3 3 3 3 5 5 1 1 5 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB BIO | ne corr. gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104 205 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry La College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI PHOT THTR THTR Subcate ARTH HONR LIT LIT PHL | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 egory B 150 111 110 213 110 | - 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 - 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 5 5 1 1 5 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB ASTR ASTR CHMY CHMY CHMY GEO GEO GPHY GPHY PHSX PHSX | ne corr. gory A 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab Our Physical World Our Physical World | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT LIT | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 150 111 110 213 | - 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 - Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature Montana Literature | 3 credits 3 3 3 3 3 3 3 3 3 5 5 1 1 5 1 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB BIO | 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104 205 206 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I College Physics I College Physics I Lab | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT LIT PHL PHL | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 egory B 150 111 110 213 110 | - 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 - Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature Montana Literature Introduction to Ethics Philosophies of Life | 3 credits 3 3 3 3 3 3 3 3 3 5 5 6 1 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 |
| at least of Subcateg BIOB BIOB BIOB BIOB BIOB BIOB BIOB BIO | 101 102 121 122 123 160 161 110 111 121 122 141 142 101 102 262 263 103 104 205 206 | esponding lab or Integrated Sciences Life Sciences Discover Biology Discover Biology Lab Fundamentals of Biology for Allied I Fund of Biology: Evolution, Ecology Biodiversity Fund of Biology: The Nature of Nutr Principles of Living Systems Principles of Living Systems Lab Introduction to Astronomy Introduction to General Chemistry Introduction to General Chemistry Introduction to General Chemistry La College Chemistry I College Chemistry Laboratory I Introduction to Physical Geology Introduction to Physical Geology Introduction to Physical Geology Lab Spatial Sciences Technology & Appl Spatial Sciences & Technology Lab Our Physical World Our Physical World College Physics I College Physics I College Physics I Lab | 3-4 credits 3 1 Health 3 7, and 3 ition 3 1 3 ab 1 3 boratory 1 lications 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 | Subcate ARTZ ARTZ ARTZ ARTZ ARTZ ARTZ CRWR FILM LIT MART MUSI MUSI MUSI MUSI MUSI FHOT THTR THTR Subcate ARTH HONR LIT LIT PHL PHL | 101 105 106 108 131 240 160 270 260 101 114 131 147 154 101 120 egory B 150 111 110 213 110 | - 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 - Humanities Introduction to Art History Perspectives and Understanding Introduction to Literature Montana Literature Introduction to Ethics Philosophies of Life | 3 credits 3 3 3 3 3 3 3 3 3 5 5 6 1 1 1 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 major coursework | | | | | | |
| rofessiona | l Educati | on Core | | | | |
| *#EDU | 105 | Education and Democracy | 3 | | | |
| ^#EDU | 220/ | Human Growth and Development/ | 3 | | | |
| | 220L | Lab (45 hour practicum required) | | | | |
| #EDU | 221 | Educational Psychology and Measurement | 3 | | | |
| ^#EDSP | 204 | Introduction to Teaching Exceptional Learners | 3 | | | |
| | | (15 hour practicum required) | | | | |
| #HTH | 412 | Drugs and Alcohol | 1 | | | |
| EDU | 333 | Reading and Writing Across the Curriculum | 3 | | | |
| EDU | 354 | Secondary Junior Field | 2 | | | |
| EDU | 380 | Introduction to Curriculum Planning/Practice | 2 | | | |
| EDU | 406 | Philosophical, Legal & Ethical Issues in Education | 3 | | | |
| EDU | 494 | Seminar/Workshop: Mathematics | 1 | | | |
| EDU | 495C | Student Teaching: 5-12 | 9 | | | |
| EDU | 497B | Methods: 9-12 Mathematics | 3 | | | |
| EDU | 497R | Methods: 5-8 Mathematics | 3 | | | |

#Required for Admission to the Educator Preparation Program

Mathematics Required Courses

| CSCI | 111A | Programming with Java I | 4 | |
|------|------|--|---|--|
| M | 110 | Mathematical Computing | 1 | |
| *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 | 371 | Numerical Computing | 4 | |
| M | 431 | Abstract Algebra I | 3 | |
| M | 471 | Mathematical Analysis | 3 | |
| M | 472 | Introduction to Complex Analysis | 3 | |
| M | 499 | Capstone | 3 | |
| STAT | 341 | Introduction to Probability and Statistics | 4 | |

^{*}May satisfy General Education requirements.

| Electives | | |
|-----------|--|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | 1 |

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

| Categories | Credits | Earned | Remaining |
|-----------------------------|---------|--------|-----------|
| General Education | 31 | | |
| Professional Education Core | **36 | | |
| Mathematics Major | **48 | | |
| 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.