MONTANA STATE UNIVERSITY BILLINGS

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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 (10 credits) A. Mathematics (3 credits) *M 171 – Major requirement*					
B. English (3 credits)					
C. Communication & Information Literacy (3 credits)					
D. Skills for College Success [1] (1 credit)	COLS 108				
Category II: Natural Sciences [2] (6 credits) A. Life Sciences (3 credits)					
B. Physical Sciences (3 credits)					
Category III: Social Sciences and History (6 credits) A. Social Science (3 credits)					
B. History (3 credits)					
Category IV: Cultural Diversity (3 credits)					
Category V: Arts & Humanities (6 credits) A. Fine Arts (3 credits)					
B. Humanities (3 credits)					

[1] In addition to the MUS Transfer Policies (see MUS Core Curriculum (https://catalog.msubillings.edu/undergraduate/admissions-registration/registrars-office/), transfer and re-admit students who transfer in 30 or more credits are not required to meet this category.

[2] Some majors are required to take specific science labs as part of their requirements. Please speak with an advisor for more information.

A minimum grade of "C-" required in all General Education courses.
Note: Certain degrees may require a minimum grade of "C" in General Education courses.

Reviewed:

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GENERAL EDUCATION REQUIREMENTS

CATEGORY I: GLOBAL ACADEMIC SKILLS — 10 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

BMIS	150	Cyber Security and Electronic Communication	3
COMX	111	Introduction to Public Speaking	3
COMX	115	Introduction to Interpersonal Communication	3
COMX	210	Communication in Small Groups	3
HONR	205	Honors Inquiry and Research	3
LSCI	125	Research in the Information Age	3

Subcategory D – Skills for College Success [1] — 1 credit

COLS 108		The College Experience	

CATEGORY II: NATURAL SCIENCES — 6 credits

Students are required to take one course from Life Sciences and one course from Physical Sciences, which include lab exercises. [2]

Subcategory A – Life Sciences — 3 credits

BIOB	101	Discover Biology [3]	3
BIOB	102	Discover Biology Lab [3]	1
BIOB	120	Fundamentals of Biology Plants and People [3]	3
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 [3]	1
SCIN	101	Integrated Sciences I [3^]	4

Subcategory B – Physical Sciences — 3 credits

ASTR	110	Introduction to Astronomy	3
ASTR	111	Introduction to Astronomy Lab [3]	1
CHMY	121	Introduction to General Chemistry	3
CHMY	122	Introduction to General Chemistry Lab [3]	1
CHMY	141	College Chemistry I	3
CHMY	142	College Chemistry Laboratory I [3]	1
GEO	101	Introduction to Physical Geology	3
GEO	102	Introduction to Physical Geology Laboratory [3]	1
GEO	112	Montana Geology	3
GPHY	262	Spatial Sciences Technology & Applications	3
GPHY	263	Spatial Sciences & Technology Lab [3]	1
PHSX	103	Our Physical World [3]	3
PHSX	104	Our Physical World Lab [3]	1
PHSX	205	College Physics I	3
PHSX	206	College Physics I Lab [3]	1
SCIN	103	Integrated Science II [3^]	4

CATEGORY III: SOCIAL SCIENCES AND HISTORY — 6 credits

Students are required to take one course from each subcategory

Subcategory A – Social Sciences — 3 credits

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
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
HSTA	102	American History II	3
HSTR	159	World History to 1500 CE	3
HSTR	160	Modern World History	3
PSCI	230	Introduction to International Relations	3

CATEGORY IV: CULTURAL DIVERSITY — 3 credits

ANTY	220	Culture and Society	3
ARTH	160	Global Visual Culture	3
COMX	212	Intro to Intercultural Communication	3
GPHY	121	Human Geography	3
HTH	270	Global Health Issues	3
LIT	230	World Literature Survey	3
MUSI	207	World Music	3
NASX	105	Introduction to Native American Studies	3
NASX	205	Native Americans in Contemporary Society	3
REHA	201	Introduction to Diversity in Counseling	3
RLST	170	The Religious Quest	3
SPNS	150	The Hispanic Tradition	3
WGSS	274	Women, Culture, and 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	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

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[2] Some majors are required to take specific science labs as part of their requirements. Please speak with an advisor for more information.

[3] Course includes lab exercises.

[^] Elementary Education majors can satisfy Natural Sciences by taking SCIN 101 and SCIN 103.

Course				Credits	Grade	Semester	Equivalent
A minimum grade of C- or better is required in all major coursework							

Required Core Courses

		Course		Credits	Grade	Semester	Equivalent
*M	171	Calculus I		4			
M	172	Calculus II		4			
M	242	Methods of Proof		3			
M	273	Multivariable Calculus		4			
M	333	Linear Algebra		4			
M	431	Abstract Algebra I		3			
M	471	Mathematical Analysis		3			
M	498	Internship/Cooperative Education		1-4			

*May satisfy General Education requirements.

Language Requirement (2 semesters/1 year of the same language)

Concentration Electives: Complete 23 credits (14 credits must be upper division) from one of the two concentrations listed below. Other courses may be chosen in consultation with an advisor.

I.   Concentration in Data Science

Course				Credits	Grade	Semester	Equivalent
Required Courses:							
CSCI	100	Introduction to Programming		3			
M	494	Seminar/Workshop (Data Science Course)		1-4			
Select two STAT courses from below:							
STAT	216	Introduction to Statistics		4			
STAT	217	Intermediate Statistical Concepts		4			
STAT	341	Introduction Probability and Statistics		4			
Other courses may include, but are not limited to:							
BMIS	311	Management Information Systems		3			
CSCI	111B	Programming with Java I		3			
CSCI	116	Python Programming		3			
CSCI	240	Databases and SQL		3			
ECNS	403	Introduction to Econometrics		3			
M	305	Discrete Structures I		4			
PSCI	427	Research Methods		3			
PSYX	320	Advanced Psych Research Methods		3			
PSYX	321	Advanced Psych Research Methods Lab		1			
SOCI	400	Applied Research Methods		3			

II. Concentration in Finance

		Required Courses:				
BFIN	322	Business Finance	3			
M	494	Seminar/Workshop (Financial Mathematics Course)	1-4			
		Select two STAT courses from below:				
STAT	216	Introduction to Statistics	4			
STAT	217	Intermediate Statistical Concepts	4			
STAT	341	Introduction Probability and Statistics	4			
		Other courses may include, but are not limited to:				
BFIN	420	Investments	3			
BFIN	430	Financial Modeling	3			
BFIN	441	Advanced Analysis Financial Statements	3			
BFIN	455	Money and Banking	3			
BFIN	460	Derivatives and Risk Management	3			
BFIN	461	Portfolio Management	3			
ECNS	403	Introduction to Econometrics	3			
M	305	Discrete Structures I	4			

Restricted Electives:

		Select 7 credits (3 credits must be upper division) from below. Other courses may be chosen in consultation with an advisor.				
BFIN	422	Intermediate Business Finance	3			
BFIN	439	Financial Management II: Analysis/Problems	3			
CSCI	181	Web Design and Programming	3			
CSCI	223	Software Development	3			
M	274	Intro Differential Equations	4			
M	329	Modern Geometry	3			
M	371	Numerical Computing	4			
M	472	Intro to Complex Analysis	3			
PHSX	220	Physics I	3			
PHSX	221	Physics I Lab	1			
PHSX	232	Physics II and Thermo	3			
PHSX	233	Physics II and Thermo Lab	1			
PHSX	391	Special Topics	3			

Course	Credits	Grade	Semester	Equivalent
Electives				

BACHELOR OF SCIENCE DEGREE IN MATHEMATICS

Categories	Credits	Earned	Remaining
General Education	31	_____	_____
Required Core Courses	26-29	_____	_____
Language Requirement	8	_____	_____
Concentration Electives	23	_____	_____
Restricted Electives	7	_____	_____
Electives	V	_____	_____
Total	120	_____	_____

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).

Certain courses in this program have prerequisites; students should check the course descriptions for required prerequisites.

NOTES: