

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

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ADVISING WORKSHEET

BACHELOR OF SCIENCE DEGREE MAJOR IN BROADFIELD SCIENCE General Bulletin 2021-2022

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Name	 	 	
Student ID #			
Sinuent 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) M 171 is a major requirement					
B. English (3 credits)					
C. Communication & Information Literacy (3 credits)					
Category II: Natural Sciences (7 credits) 2 lectures (6 credits) & 1 lab (1 credit) (1 life science & 1 physical science & 1 lab)					
BIOB 160/161 are major requirements					
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)					

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.

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

Reviewe	Reviewed:										

GENERAL EDUCATION REQUIREMENTS

Students		GLOBAL ACADEMIC SKILLS uired to take one course from each subc		v			SOCIAL SCIENCES AND HISTORY 6 CREE uired to take one course from each subcategory
		- Mathematics	3 cred				 Social Sciences 3 credi
Л	105	Contemporary Mathematics		3	ANTY	217	Physical Anthropology & Archeology
1	114	Extended Technical Mathematics		3	BGEN	105	Introduction to Business
1	121	College Algebra		3	COMX	106	Communicating in a Dynamic Workplace
[122	College Trigonometry	_	3	ECNS	201	Principles of Microeconomics
1	130	Mathematics for Elementary Teacher	s I	3	ECNS	202	Principles of Macroeconomics
1	140	College Math for Healthcare		3	EDU	105	Education and Democracy
1	143	Finite Mathematics		4	HTH	110	Personal Health and Wellness
1	161	Survey of Calculus		3	PSCI	210	Introduction to American Government
1	171	Calculus I		4	PSCI	220	Introduction to Comparative Government
TAT	141	Introduction to Statistical Concepts		3	PSYX	100	Introduction to Psychology
TAT	216	Introduction to Statistics		4	SOCI	101	Introduction to Sociology
		F 11.1			SOCI	201	Social Problems
		- English	3 cred		6.1.4	n	TI: 4
/RIT	101	College Writing I		3	Subcates		
VRIT	121	Introduction to Technical Writing		3	HSTA	101	American History I
VRIT	122	Introduction to Business Writing		3	HSTA	102	American History II
VRIT	201	College Writing II		3	HSTR	101	Western Civilization I
VRIT	220	Business & Professional Writing		3	HSTR	102	Western Civilization II
/RIT	221	Intermediate Technical Writing		3	PSCI	230	Introduction to International Relations
uhooto	gory C	Communication & Information Litera	ov 3 am	dite	<u> </u>	DX: 117	Cyry gyrp Ly Dwyrp gymy
MIS 1		Cyber Security and Electronic Commun					CULTURAL DIVERSITY 3 cre
OMX		ntroduction to Public Speaking		3	ANTY	220	Culture and Society
OMX :		ntroduction to Interpersonal Communic	cation	3	ARTH	160	Global Visual Culture
SCI 12		Research in the Information Age		3	COMX	212	Intro to Intercultural Communication
				J	GPHY	121	Human Geography
ATECO	ny II. N	LATURAL SCIENCES 6 on locture	Pr 1 am	lob	HTH	270	Global Health Issues
		VATURAL SCIENCES 6 cr. lecture 6			LIT	230	World Literature Survey
		uired to take one course from each subc	ategory	and	MUSI	207	World Music
		esponding lab or Integrated Sciences			NASX	105	Introduction to Native American Studies
			3-4 cred		NASX	205	Native Americans in Contemporary Society
IOB	101	Discover Biology		3	PHL	271	Indian Philosophies and Religions
IOB	102	Discover Biology Lab		1	PHL	272	Chinese Philosophies and Religions
IOB	121	Fundamentals of Biology for Allied I		3	REHA	201	Introduction to Diversity in Counseling
BIOB	122	Fund of Biology: Evolution, Ecology	, and		RLST	170	The Religious Quest
		Biodiversity		3	SPNS	150	The Hispanic Tradition
BIOB	123	Fund of Biology: The Nature of Nutri	ition	3	WGSS	274	Women, Culture, and Society
<i>IOB</i>	160	Principles of Living Systems		3			
IOB	161	Principles of Living Systems Lab		1	CATEGO	RY V:	ARTS & HUMANITIES 6 cree
_	_				Students	are requ	uired to take one course from each subcategory
		·	3-4 cred				- Fine Arts 3 cree
STR	110	Introduction to Astronomy		3	ARTZ	101	Art Fundamentals
STR	111	Introduction to Astronomy Lab		1	ARTZ	105	Visual Language-Drawing
HMY	121	Introduction to General Chemistry		3	ARTZ	106	Visual Language-2-D Foundations
HMY	122	Introduction to General Chemistry La	ab	1	ARTZ	108	Visual Language-3-D Foundations
HMY	141	College Chemistry I		3	ARTZ	131	Ceramics for Non-majors
HMY	142	College Chemistry Laboratory I		1	CRWR	240	Intro Creative Writing Workshop
EO	101	Introduction to Physical Geology		3	FILM	160	Introduction to World Cinema
EO	102	Introduction to Physical Geology Lab	oratory	1	LIT	270	Film & Literature
PHY	262	Spatial Sciences Technology & Appli					
PHY	263	Spatial Sciences & Technology Lab		1	MART	260	Computer Presentation and Animation
HSX	103	Our Physical World		3	MUSI	101	Enjoyment of Music
HSX	104	Our Physical World Lab		1	MUSI	114	Band: MSUB Symphonic
HSX	205	College Physics I		3	MUSI	131	Jazz Ensemble I: MSUB
HSX	206	College Physics I Lab		1	MUSI	147	Choral Ensemble: University Chorus
15/1	200	Conege i nysies i Lau			PHOT	154	Exploring Digital Photography
tegrata	ed Scien	res			THTR	101	Introduction to Theatre
		3, 104 Integrated Sciences	3, 1, 3	. 1	THTR	120	Introduction to Acting I
-11 1 10	1, 102, 10	5, 10. Integrated Sciences	٥, 1, ٥	, .	Cubaat	TOPE, D	Humanities 2
							- Humanities 3 cre-
					ARTH	150	Introduction to Art History
					HONR	111	Perspectives and Understanding
					LIT	110	Introduction to Literature
					LIT	213	Montana Literature
					DITT		
					PHL	110	Introduction to Ethics
					PHL PHL PHL	110 111 254	Introduction to Ethics Philosophies of Life People and Politics

Course Credits Grade Semester Equivalent

A minimum grade of C- or better is required in all major coursework

D. 1	-	•	
Biology	Ken	niren	ients
DIVIVE	1104	un cn	

Brorogj rre	1				
*BIOB	160	Principles of Living Systems	3		
* BIOB	161	Principles of Living Systems Lab	1		
BIOB	170	Principles of Biological Diversity	3		
BIOB	171	Principles of Biological Diversity Lab	1		
BIOB	260	Cellular and Molecular Biology	3		
BIOB	261	Cellular and Molecular Biology Lab	1		
BIOB	375	General Genetics	3		
BIOB	376	General Genetics Lab	1		
BIOE	370	General Ecology	3		
BIOE	371	General Ecology Lab	1		

Biology Total 20

Chemistry Requirements

	menes				
141	College Chemistry I	3			
142	College Chemistry Laboratory I	1			
143	College Chemistry II	3			
144	College Chemistry Laboratory II	1			
321	Organic Chemistry I	3			
322	Organic Chemistry Laboratory I	1			
323	Organic Chemistry II	3			
324	Organic Chemistry Laboratory II	1			
380	Biochemistry	3			
381	Biochemistry Lab	1			
	141 142 143 144 321 322 323 324 380	141 College Chemistry I 142 College Chemistry Laboratory I 143 College Chemistry II 144 College Chemistry Laboratory II 321 Organic Chemistry I 322 Organic Chemistry Laboratory I 323 Organic Chemistry II 324 Organic Chemistry Laboratory II 380 Biochemistry	141 College Chemistry I 3 142 College Chemistry Laboratory I 1 143 College Chemistry II 3 144 College Chemistry Laboratory II 1 321 Organic Chemistry I 3 322 Organic Chemistry Laboratory I 1 323 Organic Chemistry II 3 324 Organic Chemistry Laboratory II 1 380 Biochemistry I 3	141 College Chemistry I 3 142 College Chemistry Laboratory I 1 143 College Chemistry II 3 144 College Chemistry Laboratory II 1 321 Organic Chemistry I 3 322 Organic Chemistry Laboratory I 1 323 Organic Chemistry II 3 324 Organic Chemistry Laboratory II 1 380 Biochemistry 3	141 College Chemistry I 3 142 College Chemistry Laboratory I 1 143 College Chemistry II 3 144 College Chemistry Laboratory II 1 321 Organic Chemistry I 3 322 Organic Chemistry Laboratory I 1 323 Organic Chemistry II 3 324 Organic Chemistry Laboratory II 1 380 Biochemistry 3

Chemistry Total

20

Earth Science Requirements

*GEO	101	Introduction to Physical Geology	3		
*GEO	102	Introduction to Physical Geology Laboratory	1		
GEO	205	Mineralogy	4		
GEO	211	Earth History and Evolution	3		
GEO	212	Earth History and Evolution Laboratory	1		
GEO	309	Sedimentation and Stratigraphy	3		
Select one	course from	the following:			
ERTH	303	Weather and Climate	4		
ERTH	491	Special Topics	3		

Earth Science Total 18-19

Physics Requirements

*ASTR	110	Introduction to Astronomy	3		
* ASTR	111	Introduction to Astronomy Lab	1		
PHSX	220	Physics I	3		
PHSX	221	Physics I Lab	1		
PHSX	232	Physics II and Thermodynamics	3		

PHSX	233	Physics II and Thermodynamics Lab	1			
PHSX	343	Modern Physics	3			
PHSX	391	Special Topics	3			
PHSX	491	Special Topics	3			
		Physics Total	21	•		
Riological	l or Physic	al Science Electives: (12 credits) – at least 3 c	redite must be	unner d	vision	
biological	i or r mysic	at Science Electives. (12 cicuits) – at least 5 c	Teans must be	иррег и	I V ISIOII	
		Total	12			
	tics Requi					
*M	171	Calculus I	4			
3.6			+			
M	172	Calculus II	4			
	172	Calculus II Mathematics Total	+			
*May satis	172	Calculus II	4			
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*May satis	172	Calculus II Mathematics Total	8			
*May satis Electives BACHELO	172 sfy General	Calculus II Mathematics Total Education requirements.	8			
*May satis Electives BACHELO Categorie	172 sfy General or of Sciences	Calculus II Mathematics Total Education requirements. NCE DEGREE MAJOR IN BROADFIELD SCIENCE Credits Earned Remain	8			
May satis	172 sfy General or of Sciences	Calculus II Mathematics Total Education requirements.	8			

Categories	Credits	Earned	Remaining
General Education	31		
Biology	**16		
Chemistry	***17		
Earth Science	18-19		
Physics	21		
Biological or Physical Scien	ce Elect 12		
Mathematics	8		
Total	120		

It is the student's responsibility to know and meet the requirements for graduation.

^{**4} credits that also satisfy General Education requirements are not included in the total credits for the major.
***3 credits that also satisfy General Education requirements are not included in the total credits for the major.

A minimum of 36 credits must be upper division classes (300 and above).

Notes: