

CHIEF DULL KNIFE COLLEGE & MSU BILLINGS



ADVISING WORKSHEET BACHELOR OF SCIENCE DEGREE MAJOR IN BIOLOGY ENVIRONMENTAL SCIENCES OPTION General Bulletin 2013-2015

TRANSFER INSTITUTION(S):

Montana State University Billings
Advising Center
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	CDKC Equivalent
Category I: Global Academic Skills (9 credits) A. Mathematics (3 credits) <i>M 171 & STAT 216 – Major requirements</i> B. English (3 credits) C. Communication & Information Literacy (3 credits)					^ See below MA 262 or MA 255 Recommended
	WRIT 101				CA 151
Category II: Natural Sciences (7 credits) 2 lectures (6 credits) & 1 lab (1 credit) (1 life science & 1 physical science & 1 lab) <i>BIOB 160/161 – Major requirement</i> <i>CHMY 141/142 & GEO 101/102 – Major requirements</i>	Life Science				^ See below SC 161 Recommended
	Physical Science				^ See below SC 154 or 273 Recommended
	Lab				^ See below Lab with SC 154, 161, or 273
Category III: Social Sciences and History (6 credits) A. Social Science (3 credits) B. History (3 credits)					^ See below
					^ See below
Category IV: Cultural Diversity (3 credits)					^ See below
Category V: Arts & Humanities (6 credits) A. Fine Arts (3 credits) B. Humanities (3 credits)					^ See below
					^ See below

A minimum grade of "C-" is required in all General Education courses.

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

Students should consult with their advisors to determine if specific courses are necessary in order to satisfy the General Education requirements within this program.

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

^Take courses at Chief Dull Knife College that are equivalent to MSUB General Education course requirements on next page **OR** earn an AS or AA degree from Chief Dull Knife College.

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	131	Mathematics for Elementary Teachers II	3
M	143	Finite Mathematics	4

M 171 Calculus I 4

STAT	141	Introduction to Statistical Concepts	3
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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

BMIS	150	Computer Literacy	3
COMX	111	Introduction to Public Speaking	3
COMX	115	Introduction to Interpersonal Communication	3
LSCI	125	Research in the Information Age	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 SCIN 101, 102, 103 & 104

Subcategory A – Life Sciences 3-4 credits

BIOB	101	Discover Biology	3
BIOB	102	Discover Biology Lab	1
<i>BIOB 160</i>		<i>Principles of Living Systems</i>	3
<i>BIOB 161</i>		<i>Principles of Living Systems Lab</i>	1

Subcategory B – Physical Sciences 3-4 credits

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
<i>CHMY 141</i>		<i>College Chemistry I</i>	3
<i>CHMY 142</i>		<i>College Chemistry Lab I</i>	1
<i>GEO 101</i>		<i>Introduction to Physical Geology</i>	3
<i>GEO 102</i>		<i>Introduction to Physical Geology Lab</i>	1
GPHY	112	Introduction to Physical Geography Lab	1
GPHY	111	Introduction to Physical Geography	3
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
PHSX	105	Fundamentals of Phys Sci	3
PHSX	106	Fundamentals of Phys Sci Lab	1

Subcategories A and B – Integrated Sciences 7 credits

SCIN	101, 102, 103 & 104	Integrated Sciences	3, ½, 3, ½
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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
PSYX	231	Human Relations	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	101	Western Civilization I	3
HSTR	102	Western Civilization II	3
HSTR	103	Honors Western Civilization I	3
HSTR	104	Honors Western Civilization II	3
PSCI	230	Introduction to International Relations	3

CATEGORY IV: CULTURAL DIVERSITY 3 credits

A&SC/WGSS	274	Women, Culture, and Society	3
ANTY	220	Culture and Society	3
ARTH	160	Global Visual Culture	3
COMX	212	Introduction 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
PHL	271	Philosophy & Religion of India	3
PHL	272	Philosophy & Religion of China/Tibet/Japan	3
REHA	201	Introduction to Diversity in Counseling	3
RLST	170	The Religious Quest	3
SPNS	150	The Hispanic Tradition	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	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
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
HON	121	Perspectives and Understanding	3
HON	281	The American Intellectual Heritage (1620-1877)	3
HON	282	The American Intellectual Heritage (1877-Present)	3
LIT	110	Introduction to Literature	3
LIT	240	The Bible as Literature	3
PHL	110	Introduction to Ethics	3
PHL	111	Philosophies of Life	3

Total 31

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

Biology Requirements

*BIOB	160	Principles of Living Systems	3		SC 161
*BIOB	161	Principles of Living Systems Lab	1		Lab with SC 161
BIOB	170	Principles of Biological Diversity	3		SC 162
BIOB	171	Principles of Biological Diversity Lab	1		Lab with SC 162
BIOB	260	Cellular and Molecular Biology	3		No CDKC Equivalent
BIOB	261	Cellular and Molecular Biology Lab	1		No CDKC Equivalent
BIOM	360	General Microbiology	3		No CDKC Equivalent
BIOM	361	General Microbiology Lab	1		No CDKC Equivalent
BIOE	370	General Ecology	3		No CDKC Equivalent
BIOE	371	General Ecology Lab	1		No CDKC Equivalent
BIOB	375	General Genetics	3		No CDKC Equivalent
BIOB	376	General Genetics Lab	1		No CDKC Equivalent
BIOB	490 or 498	Undergraduate Research Internship/Cooperative Education	2		No CDKC Equivalent
BIOB	499	Senior Thesis/Capstone	1		No CDKC Equivalent

Biology Electives (choose 8 credits from the following)

BIOB	425	Advanced Cell and Molecular Biology	3		No CDKC Equivalent
BIOB	426	Advanced Cell and Molecular Biology Lab	1		No CDKC Equivalent
BIOE	483	Evolution and Ecology	3		No CDKC Equivalent
BIOE	484	Evolution and Ecology Lab	1		No CDKC Equivalent
BIOO	412	Animal Physiology	3		No CDKC Equivalent
BIOO	433	Plant Physiology	3		No CDKC Equivalent
BIOO	434	Plant Physiology Lab	1		No CDKC Equivalent
BIOO	435	Plant Systematics	2		No CDKC Equivalent
BIOO	436	Plant Systematics Lab	2		No CDKC Equivalent

Biology Total

35

Chemistry Requirements

*CHMY	141	College Chemistry I	3		SC 273
*CHMY	142	College Chemistry Lab I	1		Lab with SC 273
CHMY	143	College Chemistry II	3		SC 274
CHMY	144	College Chemistry Lab II	1		Lab with SC 274
CHMY	211	Elements of Organic Chemistry	3		No CDKC Equivalent
CHMY	212	Elements of Organic Chemistry Lab	1		No CDKC Equivalent

Chemistry Electives (choose 8 credits from the following)

BCH	380	Biochemistry	3		No CDKC Equivalent
BCH	381	Biochemistry Lab	1		No CDKC Equivalent
CHMY	311	Analytical Chemistry – Quantitative Analysis	3		No CDKC Equivalent
CHMY	312	Analytical Chemistry Lab – Quantitative Analysis	1		No CDKC Equivalent
CHMY	421	Advanced Instrument Analysis	3		No CDKC Equivalent
CHMY	422	Advanced Instrument Analysis Lab	1		No CDKC Equivalent

Chemistry Total

20

Physics Requirement (choose **one** Physics course with lab)

*PHSX	205	College Physics I	3			No CDKC Equivalent
*PHSX	206	College Physics I Lab	1			No CDKC Equivalent
OR						
PHSX	220	Physics I	3			No CDKC Equivalent
PHSX	221	Physics I Lab	1			No CDKC Equivalent

Physics Total 4

Earth Science and Geography Requirements

Geography

*GEO	101	Introduction to Physical Geology	3			SC 154
*GEO	102	Introduction to Physical Geology Lab	1			Lab with SC 154
GEO	205	Mineralogy	4			No CDKC Equivalent
GEO	309	Sedimentation and Stratigraphy	3			No CDKC Equivalent
GPHY	282	Mapping Techniques	3			No CDKC Equivalent

Earth Science (6 credits from the following)

ERTH	303	Weather and Climate	4			No CDKC Equivalent
ERTH	401	Geologic Field Methods	4			No CDKC Equivalent
GPHY	380	Principles of GIS	3			No CDKC Equivalent

Earth Science & Geography Total 20

Mathematics and Statistics Requirement *May satisfy General Education requirements

*M	171	Calculus I	4			MA 262
*STAT	216	Introduction to Statistics	4			MA 255

Math and Statistics Total 8

Restricted Electives (6 credits selected with advisor approval)

Electives

Recommended courses:

ENST	385	Environmental Impact and Policy Analysis	3			No CDKC Equivalent
PHL	322	Philosophy and Environmental Ethics	3			No CDKC Equivalent

BACHELOR OF SCIENCE DEGREE IN BIOLOGY – ENVIRONMENTAL SCIENCES OPTION

Categories	Credits	Earned	Remaining
General Education	31	_____	_____
Biology Requirements	**31	_____	_____
Chemistry Requirements	***17	_____	_____
Physics Requirements	4	_____	_____
Earth Sci. & Geog. Requirements	20	_____	_____
Math / Statistics Requirements	***5	_____	_____
Restricted Electives	6	_____	_____
Electives (variable)	V	_____	_____
Total	120	_____	_____

****4 credits that also satisfy General Education requirements are not included in the total number of credits.**

*****3 credits that also satisfy General Education requirements are not included in the total number of credits.**

The total number of elective credits required for the degree will be determined by the number of courses a student elects to take which fulfill both the General Education requirements and the major requirements. Electives should be chosen in consultation with an academic advisor.

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).