

ADVISING WORKSHEET BACHELOR OF SCIENCE DEGREE MAJOR IN CHEMISTRY GENERAL BULLETIN 2023-2024

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	Equivalent
Category I: Global Academic Skills (9 credits)					
A. Mathematics (3 credits)					
M 171 and STAT 216 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				
	BIOB 161				
CHMY 141 is a major requirement					
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.

Reviewed:

GENERAL EDUCATION REQUIREMENTS

M 105 Contemporary Mathematics M 114 Extended Technical Mathematics M 121 College Algebra M 122 College Trigonometry M 130 Mathematics for Elementary Teachers I M 140 College Math for Healthcare M 143 Finite Mathematics M 161 Survey of Calculus M 161 Survey of Calculus I STAT 141 Introduction to Statistical Concepts STAT 216 Introduction to Statistics Subcategory B - English 3 cr WRIT 101 College Writing I WRIT 121 Introduction to Technical Writing WRIT 122 Introduction to Business Writing Subcategory C - Communication & Information Literacy 3 or BMIS 150 Cyber Security and Electronic Communication COMX 111 Introduction to Interpersonal Communication COMX 115 Introduction in Small Groups HOR 205 Honors Inquiry and Research LSCI 125 Research	
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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
CHMY 141 College Chemistry I	4
CHMY 142 College Chemistry Laboratory I	1
GEO 101 Introduction to Physical Geology	3
GEO 102 Introduction to Physical Geology Laborato	
GPHY 262 Spatial Sciences Technology & Applicatio	
GPHY 263 Spatial Sciences & Technology Lab	1
PHSX 103 Our Physical World	3
PHSX 104 Our Physical World Lab	1
PHSX 205 College Physics I	2
PHSX 206 College Physics I Lab	3
SCIN 103 Integrated Science II	3 1
SCIN 104 Integrated Science II Lab	

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		uired to take one course from each subcategor	у
Subcateg	ory A -	– Social Sciences 3 cred	its
BGEN	105	Introduction to Business	3
COMX	106	Communicating in a Dynamic Workplace	3
ECNS	201	Principles of Microeconomics	3 3 3 3 3 3 3 3 3 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
Subcateg	ory B -	- History 3 cre	dits
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
		CULTURAL DIVERSITY 3 cre	
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	13
DEITA	001		2
REHA	201	Introduction to Diversity in Counseling	3
RLST	170	The Religious Quest	3 3
RLST SPNS	170 150	The Religious Quest The Hispanic Tradition	3
RLST	170	The Religious Quest	3 3 3 3
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		Course	Credits	Grade	Semester	Equivalent
		A minimum grade of C- or better is require	ed in all maje	or coursew	vork	
hemistry I	Requireme	ents			I	
*CHMY	141	College Chemistry I	4			
And *CHMY	142	College Chemistry Laboratory I	1			
CHMY	143	College Chemistry II	4			
And	144		1			
CHMY	144	College Chemistry Laboratory II	1			
CHMY And	311	Analytical Chemistry – Quantitative Analysis	3			
CHMY	312	Analytical Chemistry Laboratory – Quantitative Analysis	1			
CHMY	321	Organic Chemistry I	3			
And			-			
CHMY	322	Organic Chemistry Laboratory I	1			
CHMY	323	Organic Chemistry II	3			
And						
CHMY	324	Organic Chemistry Laboratory II	1			
CHMY	371	Physical Chemistry – Quantum Chemistry and	3			
And		Spectroscopy				
CHMY	372	Physical Chemistry Laboratory I	1			
CHMY	373	Physical Chem - Kinetics & Thermodynamics	3			
And						
CHMY	374	Physical Chemistry Laboratory II	1			
CHMY	401	Advanced Inorganic Chemistry	3			
And						
CHMY	402	Advanced Inorganic Chemistry Laboratory	1			
CHMY	411	Advanced Organic Chemistry	3			
And	410		1			
CHMY	412	Advanced Organic Chemistry Laboratory	1			
CHMY	421	Advanced Instrument Analysis	3			
And CHMY	422	Advanced Instrument Analysis Laboratory	2			
CHMY	422	Undergraduate Research	2			
CHMY	498	Internship / Cooperative Education	2			
CHMY	499	Senior Thesis/Capstone	1			
BCH	380	Biochemistry	3			
And BCH	381	Biochemistry Laboratory	1			
BCH	480	Advanced Biochemistry I	3			
And	400	Auvanceu Diochennisu y I	5			
BCH	481	Advanced Biochemistry I Laboratory	1			
2011	101	Chemistry Total	56	I		

Mathematics Requirements

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*STAT	216	Introduction to Statistics and	4		
*M	171	Calculus I	4		
М	172	Calculus II	4		
		Mathematics Total	12		

Mathematics Total

Physics Requirements

PHSX	220	Physics I	3		
And					
PHSX	221	Physics I Lab	1		
PHSX	232	Physics II and Thermodynamics	3		
And					
PHSX	233	Physics II and Thermodynamics Laboratory	1		
		Physics Total	8		

* May satisfy General Education requirements.

Course	Credits	Grade	Semester	Equivalent

Science and Math Electives (16 credits selected with advisor approval)

Electives

BACHELOR OF SCIENCE DEGREE IN CHEMISTRY

Categories	Credits	Earned	Remaining
General Education	31		
Chemistry Requirements	56		
Mathematics Requirements	12		
Physics Requirements	8		
Science and Math Electives	16		
Electives (variable)	V		
Total	120		

*May satisfy General Education requirements.

The following General Education courses also satisfy requirements in the major: CHMY 141/142, M 171 and STAT 216.

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

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: