



ADVISING WORKSHEET
BACHELOR OF SCIENCE DEGREE
MAJOR IN CHEMISTRY
GENERAL BULLETIN 2025-2026

TRANSFER INSTITUTION(S):

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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) <i>M 171 and STAT 216 major requirement</i> 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)	BIOB 160/161				
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/registrar-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:

GENERAL EDUCATION REQUIREMENTS

CATEGORY I: GLOBAL ACADEMIC SKILLS			10 credits
<i>Students are required to take one course from each subcategory</i>			
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	201	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
<i>Students are required to take one course from Life Sciences and one course from Physical Sciences, which include lab exercises. ²</i>			
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 Science I ^{3^A}	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	4
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^A}	4

CATEGORY III: SOCIAL SCIENCES AND HISTORY			6 credits
<i>Students are required to take one course from each subcategory</i>			
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
<i>Students are required to take one course from each subcategory</i>			
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.

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

		Course	Credits	Grade	Semester	Equivalent
<i>A minimum grade of C- or better is required in all major coursework</i>						
Chemistry Requirements						
*CHMY & *CHMY	141 142	College Chemistry I College Chemistry Laboratory I	4 1			
CHMY & CHMY	143 144	College Chemistry II College Chemistry Laboratory II	4 1			
CHMY & CHMY	311 312	Analytical Chemistry – Quantitative Analysis Analytical Chemistry Laboratory – Quantitative Analysis	3 1			
CHMY & CHMY	321 322	Organic Chemistry I Organic Chemistry Laboratory I	3 1			
CHMY & CHMY	323 324	Organic Chemistry II Organic Chemistry Laboratory II	3 1			
CHMY & CHMY	371 372	Physical Chemistry – Quantum Chemistry and Spectroscopy Physical Chemistry Laboratory I	3 1			
CHMY & CHMY	373 374	Physical Chem - Kinetics & Thermodynamics Physical Chemistry Laboratory II	3 1			
CHMY & CHMY	401 402	Advanced Inorganic Chemistry Advanced Inorganic Chemistry Laboratory	3 1			
CHMY & CHMY	411 412	Advanced Organic Chemistry Advanced Organic Chemistry Laboratory	3 1			
CHMY & CHMY	421 422	Advanced Instrument Analysis Advanced Instrument Analysis Laboratory	3 2			
CHMY	490	Undergraduate Research	2			
CHMY	498	Internship / Cooperative Education	2			
CHMY	499	Senior Thesis/Capstone	1			
BCH & BCH	380 381	Biochemistry Biochemistry Laboratory	3 1			
BCH & BCH	480 481	Advanced Biochemistry I Advanced Biochemistry I Laboratory	3 1			
Chemistry Total			56			
Mathematics Requirements						
CHMY	250	Applied Math for the Sciences	3			
*M	171	Calculus I	4			
*STAT	216	Introduction to Statistics	4			
Mathematics Total			11			
Physics Requirements						
PHSX & PHSX	220 221	Physics I Physics I Lab	4 1			
PHSX & PHSX	232 233	Physics II and Thermodynamics Physics II and Thermodynamics Laboratory	4 1			
Physics Total			10			

* May satisfy General Education requirements.

Course	Credits	Grade	Semester	Equivalent
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Science and Math Electives (15 credits selected with advisor approval)

Electives

BACHELOR OF SCIENCE DEGREE IN CHEMISTRY

Categories	Credits	Earned	Remaining
General Education	31	_____	_____
Chemistry Requirements	56	_____	_____
Mathematics Requirements	11	_____	_____
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: