



ADVISING WORKSHEET
BACHELOR OF SCIENCE DEGREE
MAJOR IN CHEMISTRY
GENERAL BULLETIN 2022-2023

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 (9 credits) A. Mathematics (3 credits) <i>M 171 and STAT 216 major requirement</i> 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) <i>CHMY 141 is a major requirement</i>	BIOB 160				
	BIOB 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)					

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			9 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

CATEGORY II: NATURAL SCIENCES			6 cr. lecture & 1 cr. lab
<i>Students are required to take one course from each subcategory and at least one corresponding lab or Integrated Sciences</i>			

Subcategory A – Life Sciences			3-4 credits
BIOB	101	Discover Biology	3
BIOB	102	Discover Biology Lab	1
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	1
SCIN	101	Integrated Science I	3
SCIN	102	Integrated Science I Lab	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
CHMY	141	College Chemistry I	3
CHMY	142	College Chemistry Laboratory I	1
GEO	101	Introduction to Physical Geology	3
GEO	102	Introduction to Physical Geology Laboratory	1
GPHY	262	Spatial Sciences Technology & Applications	3
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	3
PHSX	206	College Physics I Lab	1
SCIN	103	Integrated Science II	3
SCIN	104	Integrated Science II Lab	1

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	101	Art Fundamentals	3
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

Course		Credits	Grade	Semester	Equivalent
<i>A minimum grade of C- or better is required in all major coursework</i>					
Chemistry Requirements					
*CHMY And *CHMY	141 142	College Chemistry I College Chemistry Laboratory I	3 1		
CHMY And CHMY	143 144	College Chemistry II College Chemistry Laboratory II	3 1		
CHMY And CHMY	311 312	Analytical Chemistry – Quantitative Analysis Analytical Chemistry Laboratory – Quantitative Analysis	3 1		
CHMY And CHMY	321 322	Organic Chemistry I Organic Chemistry Laboratory I	3 1		
CHMY And CHMY	323 324	Organic Chemistry II Organic Chemistry Laboratory II	3 1		
CHMY And CHMY	371 372	Physical Chemistry – Quantum Chemistry and Spectroscopy Physical Chemistry Laboratory I	3 1		
CHMY And CHMY	373 374	Physical Chem - Kinetics & Thermodynamics Physical Chemistry Laboratory II	3 1		
CHMY And CHMY	401 402	Advanced Inorganic Chemistry Advanced Inorganic Chemistry Laboratory	3 1		
CHMY And CHMY	411 412	Advanced Organic Chemistry Advanced Organic Chemistry Laboratory	3 1		
CHMY And CHMY	421 422	Advanced Instrument Analysis Advanced Instrument Analysis Laboratory	3 2		
CHMY	490	Undergraduate Research	2		
CHMY	494	Seminar / Workshop	1		
CHMY	498	Internship / Cooperative Education	2		
BCH And BCH	380 381	Biochemistry Biochemistry Laboratory	3 1		
BCH And BCH	480 481	Advanced Biochemistry I Advanced Biochemistry I Laboratory	3 1		
Chemistry Total			54		
Mathematics Requirements					
*STAT	216	Introduction to Statistics and	4		
*M	171	Calculus I	4		
M	172	Calculus II	4		
Mathematics Total			12		
Physics Requirements					
PHSX And PHSX	220 221	Physics I Physics I Lab	3 1		
PHSX And PHSX	232 233	Physics II and Thermodynamics Physics II and Thermodynamics Laboratory	3 1		
Physics Total			8		

* May satisfy General Education requirements.

Course	Credits	Grade	Semester	Equivalent
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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	**51	_____	_____
Mathematics Requirements	**12	_____	_____
Physics Requirements	8	_____	_____
Science and Math Electives	16	_____	_____
Electives (variable)	V	_____	_____
Total	120	_____	_____

**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 General Education requirements and 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).**

NOTES: