

# B.S. in Chemistry Enhanced Academic Plan

B.S. in Chemistry - CWILT				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 1	Interim Semester 1	Spring Semester 1		
CHE 113 & CHE 113D *1 General Chemistry I and General Chemistry I Lab OR CHE 208 & CHE 208D *1 Accelerated General Chemistry and Accelerated General Chemistry Lab MAT 124M Calculus 1 GES 130 Christianity Western Culture GES 160 Inquiry Seminar <b>15</b>	GES 125 Introduction to the Creative Arts      <b>4</b>	CHE 214 & CHE 215 (or elective if CHE208/208D was taken in fall) *1 General Chemistry I/General Chemistry II Lab MAT 125 Calculus 2 CHE 200 Laboratory Safety and Chemical Hygiene BIB 101 Introduction to the Bible GES 140 Introduction to Wellbeing <b>15</b>	<b>PHASE 1: EXPLORE</b>  <i>Explore self, careers, &amp; God's call</i>  Take a Career Assessment  Research Careers: O*Net, Candid Careers, & informational interviews w/ Alums Gain Experience: Part-time job; Campus Involvement (e.g. student club); Volunteering	Create your R.E.A.L. Portfolio. Consider joining Chemistry Club, Sigma Zeta, or another club or ministry of interest.  Consider finding a mentor.
<b>MILESTONES: Consider study abroad options</b>				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 2	Interim Semester 2	Spring Semester 2		
CHE 224 & CHE 225 Organic Chemistry I and Organic Chemistry I Lab MAT 222 or 223 Differential Equations  PHY 292 & PHY 292D General Physics I and General Physics I Lab Second Language (S) course *2  <b>15</b>	Elective      <b>3</b>	CHE 226 & CHE 227 Organic Chemistry II and Organic Chemistry II Lab PHY 296 & PHY 297 General Physics II and General Physics II Lab THE 201 Christian Theology Contemporary Western Life and Thought (L) course <b>14</b>	<b>PHASE 1&amp;2: EXPLORE/EXPERIENCE</b>  <i>Finalize major if necessary &amp; begin gaining experience</i>  Create/update Resume & LinkedIn  Build professional network (e.g. informational interviews) Attend Spring Career Fair Obtain Internship or relevant job by summer	Continue adding artifacts and reflections to your R.E.A.L. Portfolio.  Consider taking a leadership position with a student club.  Consider going on a spring break mission trip.
<b>MILESTONES: Consider doing an online course over the summer</b>				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 3	Interim Semester 3	Spring Semester 3		
CHE 395 Chemistry Seminar: Research and Professional Development CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab Chemistry Elective Interpreting Biblical Themes (J) course World Cultures (U) course  <b>15</b>	Science, Technology, and Society (K) course      <b>3</b>	CHE 312 & CHE 313 Quantitative Analysis and Quantitative Analysis Lab CHE 348 & CHE 349 Quantum Chemistry and Spectroscopy and Quantum Chemistry and Spectroscopy Lab CHE 490 Chemistry Seminar: Research Comparative Systems (G) course Leisure and Lifetime Sports (Q) course <b>14</b>	<b>PHASE 2: EXPERIENCE</b>  <i>Use experiences to narrow down career choice &amp; develop relevant skills</i>  Participate in Fall & Spring Recruiting to obtain an internship Schedule a Mock Interview Explore Grad Schools & Take Entrance Exams (e.g. GRE) if necessary Expand Professional Network	Review your R.E.A.L. Portfolio and prepare to make it public.  Consider studying abroad.  Consider applying for a Student Leadership Position in Student Life. Consider being a TA for a favorite class.
<b>MILESTONE: A minimum 3.2 GPA in your major is a good goal to strive for</b>				
Recommended Courses		Career Planning and Preparation		R.E.A.L. Experience
Fall Semester 4	Interim Semester 4	Spring Semester 4		
CHE 320 & CHE 321 Instrumental Analysis and Instrumental Analysis Lab CHE 388 & CHE 389 Biochemistry I and Biochemistry I Lab Cross-cultural Experience (Z) course Electives  <b>12-15</b>	Interim Off      <b>0</b>	CHE 364 & CHE 365 Advanced Inorganic Chemistry and Advanced Inorganic Chemistry Lab CHE 494 Chemistry Seminar: Research Presentation Chemistry Elective Artistic Experience (A) course Contemporary Christian Issues (P) course <b>12-15</b>	<b>PHASE 3: EXECUTE</b>  <i>Execute an effective job or grad school search</i>  Participate in Fall and Spring Recruiting Apply for Graduate School if necessary Expand Professional Network	Continue updating your public R.E.A.L. Portfolio with relevant experiences and reflection.  Consider mentoring an underclassman.
<b>Total Credits: 122-128</b>				
1. CHE 208 Accelerated General Chemistry/CHE 208D Accelerated General Chemistry Lab is a one-semester course that meets the requirements of CHE 113/CHE 113D and CHE 214/CHE 215. Students taking CHE 208/CHE 208D may choose an elective in the spring of their freshman year.				
2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)				
This program assumes a student will use CHE 113 General Chemistry I/CHE 113D General Chemistry I Lab and MAT 124M Calculus 1 to meet the general education Laboratory Science and Mathematics requirements.				
Most financial aid packages stipulate 12 credits/semester; Minnesota state grants reduced when credit load falls below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.)				

# B.S. in Chemistry Enhanced Academic Plan

B.S. in Chemistry - Humanities					
Recommended Courses					
Fall Semester 1	Interim Semester 1	Spring Semester 1	Career Planning and Preparation	R.E.A.L. Experience	
CHE 113 & CHE 113D *1 General Chemistry I and General Chemistry I Lab	GES 147 Humanities II: Renaissance and Reformation	CHE 214 & CHE 215 (or elective if CHE208/208D was taken in fall) *1 General Chemistry IIGeneral Chemistry II Lab	PHASE 1: EXPLORE	Create your R.E.A.L. Portfolio Consider joining Chemistry Club, Sigma Zeta, or another club or ministry of interest.	
OR		MAT 125 Calculus 2	Explore self, careers, & God's call		
CHE 208 & CHE 208D *1 Accelerated General Chemistry and Accelerated General Chemistry Lab		GES 244 Humanities III: European Enlightenment and American Culture to 1877	Take a Career Assessment		Consider finding a mentor
MAT 124M Calculus 1		Second Language (S) course *2	Research Careers: O'Net, Candid Careers, & informational interviews w/ Alums		
GES 140 Introduction to Wellbeing GES 145 Humanities I: Greco-Roman through Middle Ages			Gain Experience: Part-time job; Campus Involvement (e.g. student club); Volunteering		
15	4	16			
<b>MILESTONES: Consider study abroad options</b>					
Recommended Courses					
Fall Semester 2	Interim Semester 2	Spring Semester 2	Career Planning and Preparation	R.E.A.L. Experience	
CHE 224 & CHE 225 Organic Chemistry I and Organic Chemistry I Lab	World Cultures (U) course	BIB 101 Introduction to the Bible	PHASE 1&2: EXPLORE/EXPERIENCE	Continue adding artifacts and reflections to your R.E.A.L. Portfolio.	
MAT 222 or 223 Differential Equations		CHE 200 Laboratory Safety and Chemical Hygiene	Finalize major if necessary & begin gaining experience		Consider taking a leadership position with a student club.
PHY 292 & PHY 292D General Physics I and General Physics I Lab		CHE 226 & CHE 227 Organic Chemistry II and Organic Chemistry II Lab	Create/update Resume & LinkedIn		Consider going on a spring break mission trip.
GES 246 Humanities IV: Modern and Contemporary Western Culture		PHY 296 & PHY 297 General Physics II and General Physics II Lab	Build professional network (e.g. informational interviews)		
		Second Language (S) course2	Attend Spring Career Fair		
15	3	16	Obtain Internship or relevant job by summer		
<b>MILESTONES: Consider doing an online course over the summer</b>					
Recommended Courses					
Fall Semester 3	Interim Semester 3	Spring Semester 3	Career Planning and Preparation	R.E.A.L. Experience	
CHE 344 & CHE 345 Thermodynamics, Kinetics, and Statistical Mechanics and Thermodynamics, Kinetics, and Statistical Mechanics Lab	Science, Technology, and Society (K) course	CHE 312 & CHE 313 Quantitative Analysis and Quantitative Analysis Lab	PHASE 2: EXPERIENCE	Review your R.E.A.L. Portfolio and prepare to make it public.	
CHE 395 Chemistry Seminar: Research and Professional Development		CHE 348 & CHE 349 Quantum Chemistry and Spectroscopy and Quantum Chemistry and Spectroscopy Lab	Use experiences to narrow down career choice & develop relevant skills		Consider studying abroad.
Interpreting Biblical Themes (J) course		CHE 490 Chemistry Seminar: Research	Participate in Fall & Spring Recruiting to obtain an internship		Consider applying for a Student Leadership Position in Student Life.
Electives		Comparative Systems (G) course	Schedule a Mock Interview		Consider being a TA for a favorite class.
		Leisure and Lifetime Sports (Q) course	Explore Grad Schools & Take Entrance Exams (e.g. GRE) if necessary		
16	3	14	Expand Professional Network		
<b>MILESTONE: A minimum 3.2 GPA in your major is a good goal to strive for</b>					
Recommended Courses					
Fall Semester 4	Interim Semester 4	Spring Semester 4	Career Planning and Preparation	R.E.A.L. Experience	
CHE 320 & CHE 321 Instrumental Analysis and Instrumental Analysis Lab	Interim Off	CHE 364 & CHE 365 Advanced Inorganic Chemistry and Advanced Inorganic Chemistry Lab	PHASE 3: EXECUTE	Continue updating your public R.E.A.L. Portfolio with relevant experiences and reflection.	
CHE 388 & CHE 389 Biochemistry I and Biochemistry I Lab		CHE 494 Chemistry Seminar: Research Presentation	Execute an effective job or grad school search		Consider mentoring an underclassman.
Chemistry Elective		Chemistry Elective	Participate in Fall and Spring Recruiting		
Cross Cultural Experience (Z) course		Artistic Experience (A) course	Apply for Graduate School if necessary		
		Contemporary Christian Issues (P) course	Expand Professional Network		
12-15	0	12-15			
<b>Total Credits: 126-132</b>					
1. CHE 208 Accelerated General Chemistry/CHE 208D Accelerated General Chemistry Lab is a one-semester course that meets the requirements of CHE 113/CHE 113D and CHE 214/CHE 215. Students taking CHE 208/CHE 208D may choose an elective in the spring of their freshman year.					
2. Students must complete through the second semester of a first year language course or equivalent (Check the catalog for details of this option.)					
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