

## Chemistry A.S. Transfer Pathway

## Minneapolis College

This guide is intended for students completing the Chemistry A.S. Transfer Pathway. Students who do not intend to complete the 60-credit program should contact Kaia Sherburne at [ksherburne01@hamline.edu](mailto:ksherburne01@hamline.edu) for course selection advice. All courses must be completed with a C- or better to transfer. For graduate school, courses should be graded a B or better.

The table below lists the Minneapolis College courses that have approved equivalencies at Hamline or fulfill requirements for the Chemistry B.S. major and general graduation requirements.

Minneapolis College Course	Hamline Plan	Credits	Hamline University Course
CHEM 1151 Principles of Chemistry I	N1	5	CHEM 1130 General Chemistry I w/lab
CHEM 1152 Principles of Chemistry II	N1	5	CHEM 1140 General Chemistry II w/lab
CHEM 2204 Organic Chemistry I AND CHEM 2224 Organic Chemistry I Lab	N1	6	CHEM 3450 Organic Chemistry I
CHEM 2205 Organic Chemistry II AND CHEM 2225 Organic Chemistry II Lab	N1	6	CHEM 3460 Organic Chemistry II
MATH 1180 Calculus I	R, M	5	MATH 1170 Calculus I
MATH 1190 Calculus II	R, M	5	MATH 1180 Calculus II
PHYS 1211 Physics for Science & Engineering I	N1	6	PHYS 1230 General Physics I w/lab
PHYS 1221 Physics for Science & Engineering II	N1	6	PHYS 1240 General Physics II w/lab
<b>Goal 1</b> ENGL 1110 College Composition* <b>OR</b> ENGA 1110 College Composition** <b>AND</b> ENGL 1111 Research and Composition for Change* CMST course - HU recommends one of the following: CMST 1005 Public Speaking CMST 1010 Interpersonal Communication CMST 2011 Small Group Communication CMST 2012 Intercultural Communication	  E  E  O O O O, G	  3  3  3 3 3 3	  FYW 1110 Critical Reading and Composition  FYW 1120 First Year Writing  FYW 1120 First Year Writing  COMM 1110 Public Speaking COMM 3360 Interpersonal Communication COMM 3380 Small Group Communication COMM 3460 Intercultural Communication
<b>Goal 2</b> – fulfilled by completing this degree			
<b>Goal 3</b> – completed by pathway requirements			
<b>Goal 4</b> – completed by pathway requirements			
<b>Goals 5 and 6</b> – minimum of 3 credits from each goal area, with one of these courses also meeting goal areas 7-10 <b>Examples:</b> PSCI 1101 American Gov't & Politics (Goals 5, 9) ARTS 1110 Introduction to Art (Goals 6, 8) SOC 1105 Introduction to Sociology (Goals 5, 7) WGSS 2212 Gender, Health, & the Environment (Goals 6, 10)	  S F, G S, D H	  3 3 3 3	  PSCI 1110 American Government and Politics ARTH 1000 Art Appreciation SJSC 1110 Society and Social Change
Choose any 1+ credit college-level course		1	Varies
Total credits for A.S. degree		60	
*Recommended for Hamline University **May result in repeated credit if paired with ENGL 1111; please consult with the Hamline Transfer Admission Counselor if both are taken			

<b>Remaining major courses for Chemistry B.S. degree (American Chemical Society approved)</b>	<b>Credits</b>
CHEM 3240 Analytical Chemistry w/lab (Hamline Plan C, W)	4
CHEM 3330 Instrumental Methods	4
CHEM 3940 Advanced Laboratory Techniques (Hamline Plan W)	2
CHEM 3550 Thermochemistry	4
CHEM 3560 Quantum Chemistry	4
CHEM 3950 Physical Chemistry Laboratory Techniques (Hamline Plan W)	2
CHEM 3840 Inorganic Chemistry w/lab (Hamline Plan O)	4
MATH 3320 Multivariable and Vector Calculus or equivalent 3XXX level course	4
<b>Advanced Courses and Research Experience</b> - 12 credits required, at least 4 credits from each area <b>Advanced Course</b> (with approval may substitute one course with advanced BIOL, MATH or PHYS course):	
BIOC 3820 Biochemistry I (Hamline Plan C, D)	4
BIOC 3830 Biochemistry II (Hamline Plan O)	4
CHEM 5900 Advanced Topics in Chemistry	2
CHEM 5980 Special Topics	-
<b>Research Experience:</b>	
CHEM 3965 Intermediate Research	2
CHEM 4010 Collaborative Research	4
CHEM 4015 SCUR Summer Collaborative Research	-
CHEM 5965 Advanced Research	2
<b>Seminar Experience</b>	
CHEM 5950 Chemistry Seminar A (three semesters)	0.5 (1.5 total)
CHEM 5960 Capstone Seminar (Hamline Plan P, Q, W)	2
Total for major	43.5
<b>Remaining graduation requirements for B.S. degree</b>	<b>Credits</b>
General Education Requirements	
- Hamline Plan W - Writing Intensive (one course if not met by remaining major courses)	0-4
- Hamline Plan S - Social Science (one course if not met by MnTC)	0-4
- Hamline Plan F - Fine Arts (eight credits total; can be partially or fully met by MnTC)	0-8
- Hamline Plan H - Humanities (two courses if not met by MnTC)	0-8
- Hamline Plan D - Diversity (two courses if not met by MnTC and/or major courses)	0-8
- Hamline Plan G - Global Citizenship (one course if not met by MnTC)	0-4
Elective credits to reach minimum 128	Varies
Total credits completed at Hamline University	68
Total credits for B.S. degree	128

### Advising Notes

All sequence courses should be completed at the same institution. Ex. Organic Chemistry I & II, Introduction to Physics I & II.

Choice of elective courses should be based on your intended career and graduate school goals. Please contact the Hamline Transfer Admission Counselor (<https://www.hamline.edu/admission-aid/admission/transfer>) for assistance before signing up for elective coursework.

Please consult with the Hamline Transfer Admission Counselor when choosing courses for goal areas 5-10 to maximize meeting Hamline's graduation requirements.

Students transferring in at junior status should have the following courses completed in the major prior to transfer: CHEM 1151 and 1152, PHYS 1211 and 1221, and MATH 1180 and 1190.

Completing the full AS degree prior to transfer is highly recommended.

A STEM Education program launched in Fall 2022. Contact Hamline Undergraduate Admissions for more details.

**Hamline Plan**

E - Expository Writing

O - Speaking Intensive

R - Formal Reasoning

M - Quantitative Reasoning

F - Fine Arts

H - Humanities

N - Natural Science (N1 lab, N2 non-lab)

S - Social Science

G - Global Citizenship

D - Diversity

C - Collaboration

W - Writing Intensive

Q - Independent Critical Inquiry and Information Literacy

P - LEAP: Liberal Education As Practice