University of Wisconsin La Crosse
La Crosse, Wisconsin
Articulation Agreement for Transfer Plan to
Swenson College of Science and Engineering
University of Minnesota Duluth
7/8/2021

This agreement is entered into the University of Wisconsin La Crosse [2005 Cowley Hall, 1725 State Street, La Crosse, WI 54601] (hereinafter the sending institution), and the University of Minnesota Duluth [1049 University Drive, Duluth, MN 55812] (hereinafter the receiving institution). This Agreement and any amendments and supplements shall be interpreted pursuant to the laws of the State of Minnesota.

The sending institution has established a **Chemistry B.S.** (hereinafter sending program), and the receiving institution has established a **Chemical Engineering B.S.Ch.E.** (hereinafter receiving program), and will facilitate credit transfer and provide a smooth transition from one program to the other. It is mutually agreed:

Admission and Graduation Requirements

A. The receiving institution's admission and program admission requirements apply to direct entry students and students who transfer under this agreement.
B. Students must complete the entire sending program, including the General Education requirements, and meet the receiving institution's admission requirements for the agreement to apply, including grade requirements for courses and an overall GPA requirement.

Transfer of Credits

A. Completion of the sending program's General Education requirements (42 credits) will satisfy the receiving programs' Liberal Education requirements.
B. Credits will transfer as follows: the receiving institution will accept 48 credits from the sending program. A total of 57-58 credits are remaining to complete the receiving program.
C. Courses will transfer as described in the attached Program Articulation Tables.
D. Liberal Education requirements at the University of Minnesota Duluth will be considered complete at the time of transfer.

Implementation and Review

A. The Chief Academic Officers or designees of the parties to this Agreement will implement the terms of this agreement, including identifying and incorporating any changes into subsequent agreements, assuring compliance with system policy, procedure, and guidelines, and conducting periodic review of this agreement.
B. This articulation agreement is effective on 09/01/2021 and will remain in effect until terminated or amended by either party with 90 days prior written notice.

C. The two universities shall work with students to resolve the transfer of courses should changes to either program occur while the Agreement is in effect.
D. This Articulation Agreement will be reviewed by both parties beginning 09/01/2026 (within six months of the fifth anniversary of the agreement).
E. When a student notifies the receiving institution of their intent to follow this agreement, the receiving institution will encode course waivers and substitutions.

Table 1. Articulation for B.S.Ch.E. in Chemical Engineering

SECTION 1A – Chemical Engineering Major

(pre-requisite courses, required core courses, or electives (restricted or general) within the major)

UW-La Crosse Courses		UM-Duluth Courses		
MTH 207 Calculus I	5	MATH 1296 Calculus I	5	Equiv
MTH 208 Calculus II	4	MATH 1297 Calculus II	5	Equiv
MTH 309 Linear Algebra with Differential Equations	4	MATH 3280 Differential Equations with Linear Algebra	4	Equiv
MTH 310 Calculus III: Multivariate Calculus	4	MATH 3298 Calculus III	4	Equiv
PHY 203 General Physics I	4	PHYS 2013 General Physics I and PHYS 2014 General Physics I Lab	4 1	Equiv
PHY 204 General Physics II	4	PHYS 2015 General Physics II and PHYS 2016 General Physics II Lab	4 1	Equiv
CHM 103 General Chemistry I	5	CHEM 1153 General Chemistry I and CHEM 1154 General Chem. Lab I	4 1	Equiv
CHM 104 General Chemistry II	5	CHEM 1155 General Chemistry II and CHEM 1156 General Chemistry Lab II	5	Equiv
CHM 301 Analytical Chemistry	5	CHEM 2222 Quantitative Analysis CHEM 2223 Quantitative Analysis Lab	3 1	Equiv
CHM 303 Organic Chemistry Theory I	3	CHEM 2541 Organic Chemistry I	3	Equiv
CHM 304 Organic Chemistry Theory II	3	CHEM 2542 Organic Chemistry II	3	Equiv
CHM 305 Organic Chemistry Laboratory	2	CHEM 2543 Organic Chemistry I Lab CHEM 2544 Organic Chemistry II Lab	1 1	Equiv
Chemical Engineering Major Transfer total	**48**			

SECTION 1B – Chemical Engineering program remaining University (receiving) Requirements – University of Minnesota Duluth

Course prefix, number, and name	Credits
ChE 2011 Design of Engineering Experiments	3
ChE 2111 or 2211 Material and Energy Balances	3-4
ChE 2121 Chemical Engineering Thermodynamics	3
ChE 3031 Computational Methods in Chemical Engineering	3
ChE 3032 Process Modeling and Simulation	3
ChE 3111 Fluid Mechanics	3
ChE 3112 Heat and Mass Transfer	3
ChE 3211 Chemical Engineering Lab I	3
ChE 3231 Properties of Engineering Materials	3
ChE 3241 Introduction to Particle Technology Or 4141 Materials and Mineral Processing	3
ChE 4111 Separations	3
ChE 4301 Chemical Reaction Engineering	3
ChE 4402 Process Dynamics and Control	3

	ChE 4501 Chemical Engineering Design I	3
	ChE 4502 Chemical Engineering Design II	3
	2xxx or higher Engineering elective subject to department approval	3
	ChE 3xxx or higher Chemical Engineering elective	3
	ChE 4xxx or higher Chemical Engineering elective	3
	WRIT 31xx or higher Advanced Writing	3
	Total Remaining University Credits for Chemical Engineering B.S.Ch.E.	**57-58**

SECTION 1C – Summary of Total Program Credits for Chemical Engineering B.S.Ch.E.

University of Wisconsin La Crosse (sending) credits		**University of Minnesota Duluth (receiving) requirements**	
Chemical Engineering Major Transfer	48		
Total College Credits	89	**Total UWL College Credits Applied**	48
			57-58
		Total Program Credits	105-106

Special Notes:
University of Minnesota Duluth requires:

- Advanced chemistry electives satisfied by Chem 2222, 2223, 2542, 2544
- 3xxx or higher Math or Stat elective satisfied by Math 3298
- 2xxx or higher engineering elective required in place of ChE 1011
- All upper-division ChE courses to be completed at the University of Minnesota Duluth
- All courses are taken for a grade
- A minimum grade of C+ in ChE 2111 or 2211 Material and Energy Balances
- CHM and ChE Dual degree students that have completed Physical Chemistry are approved for concurrent registration in ChE 2211, 2121, 3031, 3111
- A cumulative grade point average of at least 3.0, with a grade of at least C+ (BC) in the following courses, while enrolled at the University of Wisconsin La Crosse:
  - PHY 203 General Physics I
  - MTH 309 Linear Algebra with Differential Equations

Signatures Section

University of Wisconsin La Crosse	**Name**	**Signature**	**Date**
Chief Academic Officer	Betsy Morgan		7/8/21
Provost			
Title			
University of Minnesota Duluth	**Name**	**Signature**	**Date**
Chief Academic Officer	Amy Hietapelto		9/2/2021
Title			