

**MINNESOTA STATE COLLEGES AND
UNIVERSITIES*
TRANSFER AGREEMENT
BETWEEN**

**University of Wisconsin-La Crosse
AND
Winona State University**

*The Board of Trustees of the Minnesota State Colleges and Universities is authorized by Minnesota Statutes, Chapter 136F to enter into Agreements and has delegated this authority to colleges and universities.

This Agreement is entered into the University of Wisconsin-La Crosse [2005 Cowley Hall, 1725 State Street, La Crosse, WI 54601] (hereinafter sending institution), and Winona State University [175 West Mark Street, Winona, MN 55987] (hereinafter 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 **Physics B.S.** (hereinafter sending program), and the receiving institution has established a **Composite Materials Engineering B.S.** (hereinafter receiving program), and will facilitate credit transfer and provide a smooth transition from one related program to the other. It is mutually agreed:

Admission and Graduation Requirements

- A. The receiving institution's admission and program admission requirements apply to both direct entry students and to students who transfer under this agreement.
- B. Students must complete the entire sending program 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. The receiving institution will accept **93** credits from the sending program. A total of **53 credits** remain to complete the receiving program.
- B. Courses will transfer as described in the attached Program Transfer Table. For system institutions, once the courses are encoded, they will transfer as described in the "*Transferology*" audit.

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 a periodic review of this agreement.
- B. This Transfer Agreement is effective on **05/01/2021** and shall remain in effect until the end date of **05/01/2026** or for five years, whichever occurs first, unless 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 Transfer Agreement will be reviewed by both parties beginning **11/01/2025** (within six months of the end date).
- E. When a student notifies the receiving institution of their intent to follow this agreement, the receiving institution will encode course waivers and substitutions.

PROGRAM TRANSFER TABLE

	University (sending)	University (receiving)
Institution	University of Wisconsin-La Crosse	Winona State University
Program name	Physics	Composite Materials Engineering
Award Type (e.g., AS)	BS	BS
Credit Length		
CIP code (6-digit)	40.0801	14.1801
Describe program admission requirements (if any)		Admission requirements are listed on page 4.

Instructions

- List all required courses in both academic programs.
- MnTC goal areas transfer to the receiving institution according to the goal areas designated by the sending institution.
- Do not indicate a goal area for general education courses that are not part of the MnTC.
- For restricted or unrestricted electives, list number of credits.
- Credits applied: the receiving institution course credit amount may be more or less than the sending institution credit amount. Enter the number of credits that the receiving institution will apply toward degree completion.
- Show equivalent university courses on the same row to ensure accurate DARS encoding.
- Equiv/Sub/Wav column: If a course is to be encoded as equivalent, enter Equiv. If a course is to be accepted by the university as a "substitution" only for the purposes of this agreement, enter Sub. If a course requirement is waived by the receiving institution, enter Wav. If a course is to be accepted by the university as a MnTC goal area, restricted elective or unrestricted elective, leave the cell blank.

(To add rows, place cursor outside of the end of a row and press enter.)

SECTION A - Minnesota Transfer Curriculum-General Education

University of Wisconsin-La Crosse (sending)			Winona State University (receiving)			
Course prefix, number and name	UWL Gen. Eds.	Credits	Course prefix, number and name	Goal(s)	Credits Applied	Equiv Sub Wav
General Education – University of Wisconsin-La Crosse			Minnesota Transfer Curriculum-General Education			
ENG 110 College Writing	IA	3	ENG 111 College Reading and Writing	1	3	Equiv
CST 110 Communicating Effectively	IA	3	CMST 191 Intro to Public Speaking	1	3	Equiv
MTH 207 Calculus I	IB	5	MATH 212 Calculus I	3	5	Equiv
General Education Requirement IIA: Minority Cultures or Multiracial Women's Studies	IIA	3	Goal 7: Human Diversity	7	3	Equiv
General Education Requirement IIB: International and Multicultural Studies	IIB	6	Goal 8: Global Perspectives	8	6	Equiv
PHY 203 General Physics 1 or PHY 103 Fundamental Physics I**	IIC	4	PHYS 221 University Physics I	3	4	Equiv or Sub
General Education Requirement IID: Self and Society	IID	3	Goal 5: History/Social/Behavior Science	5	3	Equiv
General Education Requirement IIE: Humanistic Studies	IIE	3	Goal 6a: Humanities	6	3	Equiv
General Education Requirement IIF: Arts	IIF	4	Goal 6b: Fine Arts	6	4	Equiv
General Education Requirement IIG: Health and Physical Well-Being	IIG	3	Elective: Physical Development/Wellness	Phys. Dev. Wellness	3	Equiv
General Education University of Wisconsin-La Crosse Total		37				

Special Notes:

Students will complete the general education requirements for UWL.

** Acceptance of PHY 103 (listed above) and PHY 104 (listed below) as substitutions for the calculus based physics sequence at Winona State University are conditionally based upon successful completion of higher level physics classes that involve the use of calculus in problem solving (e.g., PHY 250 Modern Physics.)

SECTION B - Major, Emphasis, Restricted and Unrestricted Electives or Other

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

MTH 208 Calculus II	4	MATH 213 Calculus II	4	Equiv
MTH 309 Linear Algebra with Differential Equations	4	MATH 313 Differential Equations	3	Sub
		MATH 314 Linear Algebra for Differential Equations	1	
MTH 310 Calculus III: Multivariate Calculus	4	MATH 312 Multivariable Calculus	4	Equiv
PHY 204 General Physics II or PHY 104 Fundamental Physics II**	4	PHYS 222 University Physics II	4	Equiv or Sub
PHY 302 Optics	3	PHYS 370 Optics	3	Equiv
PHY 250 Modern Physics	3	PHYS 340 Modern Physics	3	Equiv
PHY 311 Experimental Physics	2	CME 102 Introduction to Engineering	2	Sub
PHY 321 Classical Mechanics	3	CME 270 Dynamics	3	Sub
PHY 320 Statics	3	CME 250 Statics	3	Equiv
PHY 334 Electrical Circuits	3	PHYS 302 Electrical Circuits	3	Equiv
PHY 460 Condensed Matter Physics	3	CME 280 Properties of Materials	3	Sub
PHY 411 Advanced Experimental Physics Lab	1	CME 281 Properties of Materials Lab	1	Sub
PHY 343 Thermodynamics	3	CME 300 Thermodynamics	3	Equiv
PHY 497 Physics and Astronomy Seminars	2	General Electives	2	Equiv
CHM 103 General Chemistry I	5	CHEM 212 Principles of Chemistry I	5	Equiv
CHM 104 General Chemistry II	5	CHEM 213 Principles of Chemistry II	5	Equiv
CS 120 Software Design 1	4	CME 210 Computer Applications in Engineering	4	Sub
Restricted elective credits - list courses (if none enter 0)	0	Restricted elective credits - list courses (if none enter 0)	0	0
College's unrestricted elective credits accepted in transfer (if none enter 0)	0	College's unrestricted elective credits accepted in transfer (if none enter 0)	0	0
Major, Emphasis, Unrestricted Electives Total		56		

SECTION C - Remaining University (receiving) Requirements – Winona State University

Course prefix, number and name	Credits
STAT 303 Introduction to Engineering Statistics	3
CHEM 340 Organic Chemistry Survey**	4
CHEM 410 Polymer Chemistry	3
CME 182 Engineering Graphics and Design	2
CME 260 Mechanics of Materials	3
CME 350 Fluid Mechanics	3
CME 360 Introduction to Composite Materials	3
CME 370 Heat and Mass Transfer	3
CME 390 Composites Manufacturing	3
CME 394 Polymer Science and Characterization	3
CME 401 Engineering Economics	1
CME 450 Mechanics of Composites	3
CME 451 Transport Phenomena Laboratory	1
CME 452 Mechanical Characterization Laboratory	2
CME 475 Design Project I	3
CME 480 Design Project II	3
CME 491A Engineering Seminar	0
CME 491B Engineering Seminar	1
Technical Electives (See WSU catalog)	9
Total Remaining University Credits	53

SECTION D - Summary of Total Program Credits

University of Wisconsin-La Crosse (sending) Credits		Winona State University (receiving) Requirements	
UWL General Education/MNTC Goals	37		
Major, Emphasis, Unrestricted Electives or Other	56		
Total College Credits	93	Total College Credits Applied	93
			53
		Total Program Credits	146

Special Notes:


Winona State University requires:

- All upper division CME courses to be completed at Winona State University.
- Acceptance of PHY 103 and PHY 104 as substitutions for the Calculus based physics sequence at Winona State University are conditionally based upon successful completion of higher level physics classes that involve the use of calculus in problem solving (e.g., PHY 250 Modern Physics.)
- **Students may opt to take CHM 303 Organic Chemistry Theory I, CHM 304 Organic Chemistry Theory II, and CHM 305 Organic Chemistry Laboratory at UWL in lieu of CHEM 340 Organic Chemistry Survey at WSU.
- All courses taken for grade.
- A minimum grade of "C" in all admission required courses.
- A cumulative grade point average of at least 2.5 GPA for the following courses taken while enrolled at the University of Wisconsin-La Crosse.

<ul style="list-style-type: none"> ○ ENG 110 College Writing ○ CST 110 Communicating Effectively ○ MTH 207 Calculus I ○ MTH 208 Calculus II ○ MTH 310 Calculus III: Multivariate Calculus ○ PHY 203 General Physics I or PHY 103 Fundamental Physics I ○ PHY 204 General Physics II or PHY 104 Fundamental Physics II 	<ul style="list-style-type: none"> ○ CHM 103 General Chemistry I ○ CHM 104 General Chemistry II ○ PHY 311 Experimental Physics ○ CS 120 Software Design I ○ PHY 320 Statics ○ PHY 250 Modern Physics
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The following limitation also applies:

- Admission is selective and subject to approval of the Engineering Admission Committee.

University of Wisconsin-La Crosse		Name	Signature	Date
Chief Academic Officer		Betsy Morgan, PhD		4/16/2021
Provost	University of Wisconsin-La Crosse			
Title				
Winona State University		Name	Signature	Date
Chief Academic Officer		Darrell Newton, PhD		
Provost	Winona State University			
Title				
DARS Encoder				
Date when equivalencies were verified/encoded in DARS by the receiving MnSCU institution.				

Date: _____

