

# Lake Superior State University — Articulation Agreement

## NORTHWESTERN MICHIGAN COLLEGE

<b>Transfer Major:</b>		<b>NMC: Engineering Transfer Program + Michigan Transfer Agreement to LSSU: B.S. Electrical Engineering (EE)</b>			
<b>Contacts:</b>	Dr. James D Smith Engineering Faculty Northwestern Michigan College (231) 995-1270 or jsmith@nmc.edu				<b>Valid For: 2023-2027</b> Continuing with review and renewal every 4 years
	Dr. Paul Weber, Chair School of Engineering and Technology Lake Superior State University (906) 635-2031 or pweber@lssu.edu				
<b>NMC Courses</b>		<b>LSSU Equivalency</b>		<b>Additl. LSSU Courses for B.S. Degree</b>	
CHM-150 (also L & R) General Chemistry I	5	CHEM-115 General Chemistry	5	EGEE-125 Digital Fundamentals	4
MTH-141 Calculus I	5	MATH-151 Calculus I	4+1	EGEE-211 Circuit Analysis Lab	1
MTH-142 Calculus II	5	MATH-152 Calculus II	4+1	EGEE-250 Microcontroller Fundamentals	4
MTH-241 Calculus III	5	MATH-251 Calculus III	4+1	EGEE-280 Intro to Signal Processing	4
MTH-251 Differential Equations	4	MATH-310 Differential Equations	3+1	EGEE-310 Network Analysis	4
PHY-221 (also L&R) Prob & Prin. of Phys. I	5	PHYS-231 Applied Physics I	4+1	EGEE-330 Electro-Mechanical Systems	4
PHY-222 (also L&R) Prob & Prin. of Phys. II	5	PHYS-232 Applied Physics II	4+1	EGEE-345 Fund. Eng. Electromagnetics	3
				EGEE-370 Electronic Devices	4
				EGEE-475 Power Electronics	4
<b>Sub-total</b>	<b>34</b>	<b>Sub-total</b>	<b>34</b>	EGNR-140 Lin. Algebra/ Num. Methods	2
<b>Recommended Electives (13 credits)</b>				EGNR-340 Adv. Num. Method for Eng.	1
EGR-101 Intro to Engineering	1	Waive EGNR-101 Intro to Engineering		EGNR-346 Prob and Stats Lab for Eng.	1
EGR-111 Intro to Computer Science	3	EGNR-265 C Programming	3	EGNR-491 Engineering Design Project I	3
EGR-211 Electrical Circuits	3	EGEE-277 Tech Elective (Waive EGEE210 Circuit Analysis - lecture only)	3	EGNR-495 Engineering Design Project II	3
EGR-201 Statics	3	EGEM-220 Statics	3	EGRS-460 Control Systems	4
<b>Courses listed below are useful but not reqd. for transfer to LSSU's EE Program</b>	<b>13</b>	<b>Addl. Electives that can be transferred</b>	<b>9</b>	MATH-308 Probability and Statistics	3
EGR-113 Engineering Graphics I	3	EGME-141 Solid Modeling	3		
EGR-202 Mechanics of Materials	3	EGME-225 Mechanics of Materials	3		
EGR-203 Dynamics	4	EGEM-320 Dynamics	3+1		
EGR-220 Engineering Practice I	2	Technical Elective	2		
EGR-221 Material Science	3	EGME-275 Materials Engineering	3		
EGR-232 Introductory Thermodynamics	3	Technical Elective	3	Technical Elective Credits	7
	<b>15</b>		<b>21</b>		
<b>Additional Michigan Transfer Agreement (MTA) Courses Reqd. (min.)</b>	<b>20</b>	<b>Gen. Ed. Requirements at LSSU - Met</b>	<b>20</b>		
* see attached MTA requirements sheet • 2 Courses in English Comp. • 1 Course in Mathematics • 2 Courses in Social Science/Grp 1 • 2 Courses in Humanities/Grp 1 • 2 Courses in Natural Science including one with a lab	8 Met 6 6 Met	MTA requirements can also be completed at LSSU		<b>Note: See 2-yr (or 2.5-yr, depending on year of entry) plan of study at LSSU attached.</b>	
<b>TOTAL NMC CREDITS</b>	<b>67-82</b>	<b>TOTAL LSSU TRANSFER CREDITS</b>	<b>66-81</b>	<b>Min. ADDL. LSSU CREDITS REQD.</b>	<b>56</b>

Course schedules and offerings throughout the year are subject to change without notice. Students are expected to work closely with advisors in planning out their academic schedules.

Any of the NMC courses listed above will transfer to LSSU with a grade of 'C-' (1.7) or better.

Any student completing the Engineering Transfer program at NMC is guaranteed admission into LSSU's B.S. Electrical Eng. program

### APPROVED BY:

*Kimberly Muller*

3/5/24

Dr. Kimberly Muller  
Interim Provost and  
Vice President for Academic Affairs  
Lake Superior State University

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*Stephen N. Siciliano* 3/7/2024

Dr. Stephen N. Siciliano  
Vice President for Educational Services  
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(Date)