# Lake Superior State University—Articulation Agreement

## Bay de Noc Community College

**Transfer Major:** Bachelor of Science-Mechanical Engineering

**Contacts:**
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**Valid:** Fall 2023 - Fall 2026

| Bay College Courses | | | LSSU Equivalency | | | Additional LSSU Courses | | |
|---|---|---|---|---|---|---|---|---|
| **Michigan Transfer Agreement (MTA)** | | | **STUDENTS EARN MTA AT BAY** | | | **REQUIREMENTS** | | |
| ENGL101 | Rhet & Comp | 3 | ENGL110 | First-Year Composition I | 3 | MATH308 | Probability & Math Statistics | 3 |
| XXXXxxx | Communications Elective | 3 | XXXXxxx | Communications Elective | 3 | EGME141 | Solid Modeling | 3 |
| MATH141 | Analytical Geo/Calc I | 5 | MATH151 | Calculus I | 4+1 | EGME275 | Engineering Materials I | 3 |
| CHEM110 | General Chemistry I | 5 | CHEM115 | General Chemistry I | 5 | EGME276 | Strength of Materials Lab | 1 |
| PHYS205 | Engineering Physics I | 5 | PHYS231 | Applied Phy Eng./Scientist | 4+1 | EGME337 | Thermodynamics | 4 |
| XXXXxxx | Social & Behav. Science | 6 | XXXXxxx | Social & Behav. Science | 6 | EGME338 | Fluid Mechanics | 3 |
| XXXXxxx | Humanities | 6 | XXXXxxx | Humanities | 6 | EGME350 | Machine Design | 4 |
| | | | | | | EGME431 | Heat Transfer | 3 |
| **REQUIREMENTS** | | | **REQUIREMENTS** | | | EGME432 | Thermal & Fluids Lab | 2 |
| CHEM110 | From above MTA | | CHEM115 | From above MTA | | EGNR101 | Waived for Transfer Students | |
| ELEC130 | Circuit Fundamentals I | 4 | EGEE210 | Circuit Analysis | 4 | EGNR140 | Linear Alg / Num Methods | 1 |
| MATH141 | From above MTA | | MATH151 | From above MTA | | EGNR265 | C Programming | 3 |
| MATH142 | Analytical Geo/Calc II | 5 | MATH152 | Calculus II | 4+1 | EGNR340 | Num Methods for Engineers | 1 |
| MATH243 | Analytical Geo/Calc III | 5 | MATH251 | Calculus III | 4+1 | EGRS460 | Control Systems | 4 |
| MATH244 | Differential Equations | 3 | MATH310 | Differential Equations | 3 | | | |
| MATH250 | Intro to Linear Algebra | 3 | EGNR100 | Special Topics | 3 | **SENIOR SEQUENCE (Select 1)** | | 6-10 |
| PHYS205 | From above MTA | | PHYS231 | From above MTA | | Industrial: EGNR491 & 495 | | |
| PHYS206 | Engineering Physics II | 5 | PHYS232 | Applied Phy Eng./Scientist II | 4+1 | Cooperative: EGNR450, 451, & 491 | | |
| PHYS260 | Statics | 3 | EGEM220 | Statics | 3 | Research: EGNR260, 460, & 461 | | |
| PHYS261 | Dynamics | 3 | EGEM320 | Dynamics | 3 | | | |
| PHYS262 | Mechanics of Materials | 3 | EGME225 | Mechanics of Materials I | 3 | **TECHNICAL ELECTIVE (Select 1 area; min. 17 credits)** | | 12-17 |
| TECH100 | Basic Machine Tool | 4 | EGME110 | Manufacturing Processes I | 3+5 | Vehicle Systems (17-18 cr): EGEE280, EGME240, EGME310, EGME415, EGME425, & [EGME442 or EGRS461] | | |
| and TECH105 | Materials of Industry | 4 | | | | Robotics & Automation (17-18 cr): EGRS365, EGRS385, EGRS430, EGRS435, & [3-4 cr Approved Tech Elective] | | |
| **TECHNICAL ELECTIVE (max. (2) 200-level)** | | 0-8 | **TECHNICAL ELECTIVES (max. (2) 200-level)** | | 0-5 | General: 17 cr Approved Tech Electives, min (2) 400-level; max (2) 200-level | | |
| Vehicle Systems (17-18 cr): LSSU Courses | | | Vehicle Systems (17-18 cr ): LSSU Courses | | | *Approved Tech Electives:* | | |
| Robotics & Automation: ELEC290 & 14-15 cr LSSU courses | | | Robotics & Automation: EGRS365 & 14-15 cr LSSU courses | | | EGME 240, 310, 415, 425, 442; EGMT 216; EGNR 261, 361, 310, 346, 490; EGRS 305, 325, 372, 375, 385, 430, 435, 461 EGEE 280, 310, 330, 345, 411 | | |
| General: ELEC240, ELEC290, & 13 cr LSSU courses | | | General: EGRS215, EGRS365, & 13 cr LSSU courses | | | | | |
| **ELECTIVES** (to reach min. 124 cr) | | | **ELECTIVES** (to reach min. 124 cr) | | | | | |

Note: Students will earn Bay's A.S. Pre-Engineering upon successful completion of the courses listed in blue. Consult with a Bay advisor.
B.S. Note: 30 credits from Mathematics and Natural Sciences is required.

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| **APPROX. BAY CREDITS** | **75-83** | | | **MIN. LSSU CREDITS** | **53-68** |
| | | | | **TOTAL CREDITS** | **Min. 128** |

Consultation with an advisor is recommended. EGNR101 will be waived for transfer students; MATH260 course sub for EGNR100/EGNR141

Mindy McCready 9/28/23
**Ms. Mindy McCready** (Date)
LSSU Interim Dean of the College of Innovation and Solutions

Kimberly Muller 9/29/23
**Dr. Kimberly Muller** (Date)
LSSU Interim Provost & VP of Academic Affairs

10-17-23
**Dr. Jessica Van Slooten** (Date)
Bay College Dean of Arts & Sciences

10/17/23
**Dr. Amy Reddinger** (Date)
VP Arts & Sciences & DEB