



TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS  
 NTC Program: Mechanical Design Engineering Technology  
 Michigan Tech Program: BS Mechanical Engineering Technology  
 Initial effective date: Fall 2022

**General Education Courses**

| NTC  |  |              | Michigan Tech                                    |                                    |                     |
|--|--|--------------|--|------------------------------------|---------------------|
| Course No.                                     | Course Title                           | Credits      | Course No.                                       | Course Title/Field                 | Credits             |
| 10-804-195                                     | College Algebra with Apps (3 cr.) OR   | 3 or 4       | MA 1030  | College Algebra 1                  | 3                   |
| 10-804-118                                     | Intermediate Algebra with Apps (4 cr.) |              |  |                                    |                     |
| 10-806-154                                     | General Physics 1 OR                   | 3 or 4       | PH 1110/1111                                     | Substitute for PH 1140/1           | 4                   |
| 10-806-139                                     | Survey of Physics                      |              |  |                                    | no credit           |
| 10-801-195                                     | Written Communication OR               | 3            | HU 1XX5  | HASS Communications/Composition OR | 3                   |
| 10-801-136                                     | English Composition 1                  |              |  | UN 1015                            | Composition         |
| 10-801-197                                     | Technical Reporting                    | 3            | HU 1XX5  | HASS Communications/Composition    | 3                   |
| 10-809-172                                     | Intro to Diversity OR                  | 3            | UN 1025  | Global Issues OR                   | 3                   |
| 10-809-196                                     | Intro to Sociology                     |              |  | SS 2700                            | Sociology           |
| 10-809-199                                     | Intro to Psychology OR                 | 3            | PSY 2000   | Intro to Psychology OR             | 3                   |
| 10-809-198                                     | Psychology of Human Relations          |              |  | PSY 1XX5                           | Psychology elective |
| 10-890-165                                     | College 101                            | 1            |  | no credit                          | 0                   |
| <b>Total general education credits earned:</b> |  | <b>19-21</b> |  |                                    |                     |
| Total transferable general education credits:  |  |              | <b>Total general education credits accepted:</b> |                                    | <b>19</b>           |

**Occupational Courses**

| Course No.                                       | Course Title                               | Credits      | Course No.   | Course Title   | Credits   |
|--|--|--------------|--|--|-----------|
| 10-606-105                                       | Technical Drafting/CAD                     | 2            | ENG 1003   | Intro to CAD   | 1         |
|  |  |              | ENG 1XXE   | ENG elective   | 1         |
| 10-606-106                                       | AutoCad Applications                       | 2            |  | no credit (ENG1003 credit for 606-105)                   | 0         |
| 10-606-128                                       | Technical Detailing                        | 2            | TRU XXXX   | unassigned elective                                      |           |
| 10-606-160                                       | Manufacturing Processes - Machining        | 2            | MET 2XXE   | Technical elective                                       | 2         |
| 10-606-162                                       | Manufacturing Processes - Fabrications     | 2            | MET 2153   | Machine Tool Fundamentals                                | 2         |
| 10-606-114                                       | Mechanisms                                 | 3            | MET 1XXE   | Technical elective                                       | 3         |
| 10-606-115                                       | Machine Design 1                           | 2            | MET 3242   | Machine Design I   | 3         |
| 10-606-117                                       | Machine Design 2                           | 3            | MET 2XXE   | Technical elective                                       | 2         |
| 10-606-116                                       | Tooling & Production                       | 2            | MET 2XXE   | Technical elective                                       | 2         |
| 10-606-132                                       | Materials of Industry                      | 2            | MSE 2XXE   | Free elective  | 2         |
| 10-606-163                                       | Strength of Materials                      | 3            | MET 2150   | Applied Strength of Materials                            | 3         |
| 10-612-120                                       | Fluid Power Systems 1: Fundamentals        | 1            | MET 2XXE   | Technical elective                                       | 1         |
| 10-606-107                                       | Designing for Manufacturability            | 4            | MET 2XXE   | Technical elective                                       | 4         |
| 10-606-108                                       | Geometric Dimensioning & Tolerancing Fund. | 1            | MET 2400   | Practical Applications for Parametric Modeling w/606-130 | 3         |
| 10-606-109                                       | Computer Apps & Analysis for Engineers     | 1            | ENG 1XXE   | ENG elective   | 1         |
| 10-606-111                                       | Applied Mechanics for Technicians          | 3            | TRU XXXX   | unassigned elective                                      | 3         |
| 10-606-125                                       | Design Problems                            | 3            | TRU XXXX   | unassigned elective                                      | 3         |
| 10-606-130                                       | Autodesk Inventor 3D CAD Software          | 2            |  | see 606-108  |           |
| 10-606-133                                       | SolidWorks 1                               | 1            | ENG 1102   | Engineering Modeling and Design (1 TW)                   | 2         |
| 10-606-134                                       | SolidWorks 2                               | 1            |  |  |           |
| 10-623-119                                       | Quality Assurance                          | 1            | MET 2XXE   | Technical elective                                       | 1         |
| 10-623-118                                       | Quality Systems                            | 2            | MET 2XXE   | Technical elective                                       | 2         |
| <b>Total occupational course credits earned:</b> |  | <b>45</b>    | <b>Total occupational course credits accepted:</b> |  | <b>41</b> |
| <b>Total credits required for graduation:</b>    |  | <b>64-66</b> | <b>Total credits accepted at MTU:</b>              |  | <b>60</b> |

**Additional credits to take to transfer:**

**Courses needed to complete degree at MTU:**

| Course No. | Course Title                  | Credits | Course No.  | Course Title                           | Credits |
|------------|-------------------------------|---------|-------------|--|---------|
|            |                               |         | CH 1150/115 | University Chemistry 1 and lab         | 4       |
|            |                               |         | EC 3400     | Economic Decision Analysis             | 3       |
|            |                               |         | EET 1411    | Basic Electronics                      | 4       |
|            |                               |         | EET 2233    | Electrical Machinery                   | 4       |
|            |                               |         | EET 3131    | Instrumentation                        | 3       |
| 10-152-310 | Client-Side Web Development 1 | 3       | ENG 1101    | Engineering Analysis & Problem Solving | 3       |
|            |                               |         | HU 3120     | Technical & Professional Communication | 3       |
| 10-804-196 | Trigonometry w/Apps           | 3       | MA1031      | College Algebra 2                      | 3       |
| 10-804-198 | Calculus                      | 4       | MA 1160     | Calculus 1                             | 4       |
| 10-804-199 | Calculus 2                    | 4       | MA 2160     | Calculus 2                             | 4       |

|            |  |   |  |   |   |           |
|------------|--|---|--|---|---|-----------|
| 10-804-189 | Introductory Statistics (transfers as MA 2710) | 3 | MA 2720  | Statistical Methods                     | 4 |           |
|            |  |   | MET 2110   | Applied Statics                         | 3 |           |
|            |  |   | MET 2130   | Dynamics                                | 3 |           |
|            |  |   | MET 3400   | Applied Fluid Mechanics                 | 3 |           |
|            |  |   | MET 3500   | Manufacturing Processes                 | 4 |           |
|            |  |   | MET 3451   | Machine Design 2                        | 3 |           |
|            |  |   | MET 3700   | Applied Thermodynamics                  | 3 |           |
|            |  |   | MET 4210   | Applied Quality Techniques              | 3 |           |
|            |  |   | MET 4300   | Applied Heat Transfer                   | 3 |           |
|            |  |   | MET 4360   | Thermal-Fluids lab                      | 1 |           |
|            |  |   | MET 4460   | Product Process Design & Development    | 2 |           |
|            |  |   | MET 4575   | Senior Project II                       | 2 |           |
|            |  |   | MET 4675   | Senior Project II                       | 2 |           |
|            |  |   | MET 4999   | Professional Practice Seminar           | 1 |           |
|            |  |   | MSE 2100   | Intro to Material Science & Engineering | 3 |           |
|            |  |   | PH1200/1240  | Applied College Physics II and lab      | 4 |           |
|            |  |   | HASS HFA   | 3000 +                                  | 3 |           |
|            |  |   | HASS any   | 3000 +                                  | 3 |           |
|            |  |   | Crit/Creative  | Core                                    | 3 |           |
|            |  |   | Social Resp  | Core                                    | 3 |           |
|            |  |   | Co-curr  | Co-curricular activities                | 3 |           |
|            |  |   | <b>Total credits needed at MTU to complete degree:</b> |   |   | <b>94</b> |

Disclaimer: Students planning to transfer should contact NTC's Transfer Specialist and transfer personnel at MTU for the most current transfer information.

Updated on: 6/8/22

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