



Northcentral
TECHNICAL COLLEGE

TRANSFER GUIDE - ASSOCIATE DEGREE PROGRAMS

NTC Program: CIVIL ENGINEERING TECHNOLOGY

Michigan Technological University: Geospatial Engineering

Minimum GPA for admission: 2.75

Initial effective date: Fall 2024

General Education Courses

| NTC | | | Michigan Technological University | | |
|--|----------------------------------|--------------|--|-----------------------------------|-----------|
| Course No. | Course Title | Credits | Course No. | Course Title/Field | Credits |
| 10-801-195 | Written Communications OR | 3 | UN 1015 | Composition | 3 |
| 10-801-136 | English Composition 1 | | | | |
| 10-801-196 | Oral/Interpersonal communication | 3 | HU 2830 | Public Speaking and Multimedia | 3 |
| 10-809-172 | Intro to Diversity Studies Or | 3 | SS 2XXX | Approved SS elective | 3 |
| 10-809-196 | Intro to Sociology | | SS 2700 | Sociology | |
| 10-809-199 | Psychology of Human Relations OR | 3 | PSY 1XXE | PSY Elective | 3 |
| 10-809-198 | Intro to Psychology | | PSY 2000 | Psychology | |
| 10-804-118 | Intermediate Algebra OR | 3 to 4 | MA 1030 | College Algebra I | 3 |
| 10-804-195 | College Algebra | | | | |
| 10-804-196 | Trigonometry | 3 | MA 1031 | College Algebra II w/ Trig | 3 |
| 10-806-154 | General Physics 1 | 4 | PH1110/1111 | College Physics I Lecture and Lab | 4 |
| 10-890-165 | College 101 | 1 | - | | |
| Total general education credits earned: | | 23-24 | | | |
| Total transferable general education credits: | | | Total general education credits accepted: | | 22 |

Occupational Courses

| Course No. | Course Title | Credits | Course No. | Course Title | Credits |
|------------|--|---------|------------|--|---------|
| 10-607-100 | Intro to Civil Engineering | 1 | CEE 1000 | Civil Engineering | 1 |
| 10-607-101 | Surveying and Mapping | 2 | SU 2000, | Intro to Surveying | 2 |
| 10-607-105 | Surveying 2 | 3 | SU 2050, | Geospatial Computations | 4 |
| 10-607-107 | Surveying 3 | 2 | SU 1XXX | SU Elective | 1 |
| 10-607-102 | AutoCAD and Civil 3D | 3 | CEE1003, | Intro to CAD | 1 |
| 10-607-104 | Intermediate Civil 3D | 3 | CEE4020 | Computer Applications | 3 |
| 10-607-110 | Advanced Civil 3d | 3 | | | |
| 10-607-106 | Soil Mechanics | 2 | CEE 3810 | Soil Mechanics (2 cr. WVD) | 2 |
| 10-607-103 | Cemented Aggregate Mixtures | 3 | CEE 3101 | Civil Engineering Materials | 3 |
| 10-607-108 | Civil Engineering Internship OR | 2 | TRUXXXX | - | |
| 10-607-109 | Civil Engineering Interactive Project | | | | |
| 10-607-111 | Transportation Infrastructure Design | 2 | CEE 3401 | Transportation Engineering (1 cr. WVD) | 2 |
| 10-607-112 | Basic Engineering Statistics | 1 | TRUXXXX | - | |
| 10-607-113 | Smart Technology for Civil Engineering | 2 | TRUXXXX | - | |

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|------------|--|--------------|---------|--|-----------|
| 10-607-114 | Construction Management, Estimating, and Safety | 2 | CEE3332 | Fundamentals of Construction (1 cr. WVD) | 2 |
| 10-607-115 | Stormwater Management | 2 | TRUXXXX | - | |
| 10-607-116 | Water and Sewer Technology | 2 | TRUXXXX | - | |
| 10-607-117 | Civil Engineering Technology Capstone | 4 | TRUXXXX | - | |
| | | | | | |
| | Total occupational course credits earned: | 39 | | Total occupational course credits accepted: | 21 |
| | Total credits required for graduation: | 62-63 | | | |
| | Total transferable credits: | | | Total credits accepted at Michigan Tech: | 43 |

Additional courses to take at NTC to transfer:

| Course No. | Course Title | Credits | Course No. | Course Title | Credits |
|-----------------------------------|---|-----------|------------|--|-----------|
| 10-152-561 | Client-Side Web Development 1A | 1 | ENG 1101 | Engineering Analysis & Prob Solving | 3 |
| 10-152-562 | Client-Side Web Development 1B | 1 | | | |
| 10-152-563 | Client-Side Web Development 1C | 1 | | | |
| 10-606-130 OR 10-606-133 & 134 | Autodesk Inventor 3D CAD Software Solidworks 1 & Solid Works 2 | 2 | ENG 1102 | Engineering Modeling and Design (1 cr WVD) | 2 |
| 10-804-189 | Statistics | 3 | MA 3710 | Engineering Statistics | 3 |
| 10-804-198 | Calculus 1 | 4 | MA 1160 | Calculus with Technology 1 | 4 |
| 10-804-199 | Calculus 2 | 4 | MA 2160 | Calculus with Technology 2 | 4 |
| 10-102-160 | Business Law | 3 | BUS 2200 | Business Law | 3 |
| | Total additional transferable credits: | 19 | | Total additional credits accepted at MTU: | 19 |

Courses needed to complete degree at MTU:

| Course No. | Course Title | Credits |
|------------|-------------------------------------|---------|
| Ess Ed | Activities for Well-Being & Success | 3 |
| Ess Ed | Arts and Culture | 3 |
| Ess Ed | Intercultural Competency | 3 |
| Ess Ed | Essential Ed Experience | 3 |
| CEE 3331 | Professional Practice | 2 |
| CH 1150/51 | University Chemistry | 4 |
| ENG 2120 | Statics/Strength of Materials | 4 |
| FW 3540 | GIS for Natural Resource Manag. | 4 |
| GE 2000 | Understanding the Earth | 3 |
| HU 3120 | Tech & Prof. Communication | 3 |
| MA 2320 | Linear Algebra | 2 |
| MA 3160 | Multivariable Calculus | 4 |
| PH 2100 | University Physics Lecture I | 3 |
| SU 2220 | Route and Engrg Surveying | 3 |
| SU 3180 | Boundary Surveying Principles | 4 |
| CMG 3200 | Site Planning and Development | 4 |
| SU 3600 | Surveying Comp & Adjustments | 4 |
| SU 4060 | Geodesy | 3 |

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| SU 4100 | Geodetic Positioning | 3 |
| SU 4140 | Photogram & UAV Mapping | 4 |
| SU 4142 | 3D Surveying & Modeling | 3 |
| SU 4180 | Land Subdivision Design | 3 |
| SU 4540 | Intro to Remote Sensing | 3 |
| SU | Surveying Elective | 3 |
| CEE 4905 | Senior Design | 3 |
| | Science Elective | 3 |
| Total credits needed at MTU to complete degree (~5 semesters): | | 84 |

Disclaimer: Students planning to transfer should contact NTC Transfer Specialist and transfer personnel at Michigan Tech for the most current information.
Updated 12/11/2024