

Engineering Technology

A civil engineering technology degree gets you started on your path to a professional engineering career. Graduates with a Bachelor degree in Civil Engineering Technology may sit for the Fundamentals of Engineering (FE) Examination administered by the State Board of Professional Engineers and Surveyors. This examination is the first of two required for registration as a professional engineer in the State of Montana. After passing the FE, students are qualified under the state law to pursue careers as engineers in training. With that FE and four years of progressive responsibly experience and other criteria as set out by the Montana Board of Professional Engineers and Land Surveyors, graduates may then sit for the Principles and Practice of Engineering Exam. Successfully passing this exam means the individual will be licensed as a professional engineer in the State of Montana.

Bachelor of Science Engineering Technology: Civil Engineering Technology

Learning Outcomes: Conducting Standardized Field and Laboratory Testing on Engineering Materials Utilizing modern surveying methods for land measurements and/or construction layout. Selecting appropriate engineering materials and practices. Planning and preparing design and construction documents, such as specifications, contracts, change orders, engineering drawings, and construction schedules.

Accredited by:

Technology Accreditation Commission of ABET
 111 Market Place, Suite 1050
 Baltimore, MD 21202-4012
 Telephone: 410.347.7700

Code	Title	Credits
General Education Core (https://catalognow.msun.edu/general-education-core/general-education-core)		33
Required Courses		
CAPP 120	Introduction to Computers (Meets CAT VII Requirement)	3
CAPP 158	MS Access	3
SRVY 230	Intro to Srvyg for Engineers	3
ETCC 173	Architectural Const & Material	3
ECIV 230	Cnst Mgmt & Bid Estimation	3
EGEN 203	Applied Mechanics	3
EGEN 208	Applied Strength of Materials	3
EGEN 325	Engineering Economic Analysis	3
ETCC 307	Structural Analysis	3
ETCC 302	Soils & Foundations	4
ETCC 361	Design/Details Steel Building	4
ETCC 375	Applied Mechanics of Fluids	3
ETCC 385	Highway Design & Construction	4
ETCC 411	Reinforcd Concrete Dsgn/Detls	4
CHMY 121	Intro to General Chemistry	3
CHMY 122	Intro to Gen Chem Lab	1
CIS 410	Enterprise Resource Planning	3
DDSN 119	Technical Graphics I	3
DDSN 114	Introduction to CAD	3
DDSN 245	Civil Drafting	3
EET 110	Electronics Survey I	3
ETCC 489	Senior Project I	1
ETCC 499	Capstone: Senior Project II	2
IT 100	Introduction to Technology (CAT VII)	3
IT 111	Industrial Safety/Waste Mgmt	2
M 112	Trigonometry & Complex Numbers (CAT II)	2
M 121	College Algebra (Meets Category II Requirement)	3
M 162	Applied Calculus (CAT II)	3
M 171	Calculus I (CAT II)	5
MCH 457	Quality Assurance	3
PHSX 205	College Physics I (Meets Category III Requirement)	3

PHSX 206	College Physics I Laboratory (Meets Category III Requirement)	1,2
COMX 111	Intro to Public Speaking (Meets Category I Requirement)	3
WRIT 101	College Writing I (Meets Category I Requirement)	3
WRIT 350	Technical Editing	3
Advisor Approved Electives: Math/Science - 4 credits, Science - 3 credits (ABET Requirement)		7
Total minimum credits required for degree		124

Associate of Applied Science Engineering Technology: Civil Engineering Technology

NOTE: The Associate of Applied Science in Civil Engineering Technology is not accredited by the Technology Accreditation Commission of ABET.

Code	Title	Credits
WRIT 108	Elementary Technical Writing ¹	3
or WRIT 101	College Writing I	
M 121	College Algebra ²	3
COMX 111	Intro to Public Speaking ³	3
or COMX 115	Intro to Interpersonal Communc	
Required Courses		
CAPP 120	Introduction to Computers	3
CAPP 158	MS Access	3
SRVY 230	Intro to Srvyg for Engineers	3
ETCC 173	Architectural Const & Material	3
ECIV 230	Cnst Mgmt & Bid Estimation	3
EGEN 203	Applied Mechanics	3
EGEN 208	Applied Strength of Materials	3
CHMY 121	Intro to General Chemistry	3
CHMY 122	Intro to Gen Chem Lab	1
DDSN 119	Technical Graphics I	3
DDSN 114	Introduction to CAD	3
DDSN 245	Civil Drafting	3
EET 110	Electronics Survey I	3
IT 100	Introduction to Technology	3
IT 111	Industrial Safety/Waste Mgmt	2
M 112	Trigonometry & Complex Numbers	2
M 162	Applied Calculus	3
PHSX 205	College Physics I	3
PHSX 206	College Physics I Laboratory	1
Advisor Approved Elective		2
Advisor Approved Science Elective *		3
Total minimum credits required for degree		65

¹ Meets Communications Requirement

² Meets Computation Requirement

³ Meets Human Relations Requirement

* Advisor approved ABET requirement. Student should select a science elective if planning to get a bachelor's degree.

Minor Engineering Technology: Civil Engineering Technology

Code	Title	Credits
Select one of the following options:		
GIS Option		
CAPP 158	MS Access	3
SRVY 230	Intro to Srvyg for Engineers	3
EGEN 325	Engineering Economic Analysis	3
ETCC 385	Highway Design & Construction	4

CIS 410	Enterprise Resource Planning	3
DDSN 245	Civil Drafting	3
IT 100	Introduction to Technology (CAT VII)	3
Structures Option		
EGEN 203	Applied Mechanics	3
EGEN 208	Applied Strength of Materials	3
EGEN 325	Engineering Economic Analysis	3
ETCC 307	Structural Analysis	3
ETCC 361	Design/Details Steel Building	4
ETCC 411	Reinforced Concrete Dsgn/Details	4
IT 100	Introduction to Technology	3
Total minimum credits required for minor		22-23