

Mechanical Engineering 1+3 Agreement with MSU Bozeman

The 1+3 Agreement with articulated coursework in Engineering and General Education is designed for students interested in a Bachelor of Science degree in Mechanical Engineering at Montana State University.

Estimated Cost

Estimated Resident Program Cost*

Estimated costs are for the Great Falls College portion of this curriculum. Please contact the partnering school for information on the estimated cost of classes there.

Tuition and Fees	\$3,418
Application Fee	\$30
Lab Fees	\$85
Books/Supplies	\$644
Total	\$4,177

* **Fall 2017 MUS Student Health Insurance Premiums will be changing. Please check the Health Insurance website (<http://students.gfcmsu.edu/insurance.html>) and/or Student Central for confirmed premium rates. Students will be charged an additional fee of \$21 per credit for online/hybrid courses.**

Program Requirements

Year 1: Courses taken at GFC MSU

Many students need preliminary math, science, and writing courses before enrolling in the program requirements. These courses may increase the total

number of program credits. Students should review their math and writing placement before planning out their full program schedule.

Course	Title	Credits	Grade/Sem
First Year			
Fall			
CHMY 141	College Chemistry I w/Lab **,+	4	_____
COMX 111	Intro to Public Speaking +	3	_____
M 171	Calculus I **,+	4	_____
WRIT 101	College Writing I **,+	3	_____
University Core -- Select one of the following:		3	
Art (IA and RA) Options			
MUSI 101	Enjoyment of Music +	3	_____
MUSI 103	Fundamntls of Musical Creation +	3	_____
MUSI 203	American Popular Music +	3	_____
MUSI 207	World Music (equiv to 307) +	3	_____
PHOT 154	Exploring Digital Photography +	4	_____
ARTZ 105	Visual Language-Drawing +	3	_____
Humanities (IH and RH) Options			
HSTA 101	American History I ((N)) +	3	_____
HSTA 102	American History II ((N)) +	3	_____
LIT 110	Intro to Lit +	3	_____
PHL 101	Introduction to Philosophy +	3	_____
PHL 110	Introduction to Ethics +	3	_____
Social Science (IS and SN) Options			
PSCI 210	Intro to American Government +	3	_____
PSYX 100	Introduction to Psychology +	3	_____
SOCI 101	Introduction to Sociology +	3	_____
Diversity (D) Options			
EDU 211	Multicultural Education +	3	_____
NASX 232	MT Ind Cltrs/Hstry/Iss (=332) ((N)) +	3	_____
SPNS 102	Elementary Spanish II **,+	4	_____
		Credits	17
Spring			
M 172	Calculus II **,+	4	_____
PHSX 220	Physics I w/Lab **,+	4	_____
University Core not previously taken -- Art (IA and RA), Humanities (IH and RH), Social Science (IS and SN), or Diversity (D) Options listed above		6	
		Credits	14
		Total Credits	31

* Key courses

** Placement in course(s) is determined by placement assessment

*** Assumes COMX 111 transfers to MSU Bozeman with a US Core designation

+ Indicates a course prerequisite

Years 2-4: Outline for Completion of the Bachelor of Science in Mechanical Engineering Degree at Montana State University

The following courses would be taken at MSU in Bozeman after transferring with Year 1 coursework from Great Falls College. These courses are all

required for degree completion; the course sequencing indicated below is a general guide on when they can be taken.

Course	Title	Credits	Grade/Sem
Year 2 - Fall Semester			
EGEN 201	Engineering Mechanics - Statics	3	_____
EMEC 100	Introduction to Mechanical Engineering	1	_____
EMEC 103	Engineering Graphics	3	_____
M 273Q	Multivariable Calculus	4	_____
PHSX 222	Physics II (w/calculus)	4	_____
University Core (Art, Humanities, Social Science, or Diversity)		3	_____
Subtotal		18	_____

Year 2 - Spring Semester			
EGEN 202	Engineering Mechanics - Dynamics	3	_____
EGEN 205	Mechanics of Materials	3	_____
EMAT 252	Materials Lab	1	_____
EMEC 203	Mechanical Engineering Computation	2	_____
EMEC 250	Mechanical Engineering Materials	3	_____
M 274	Intro to Differential Equations	4	_____
Subtotal		16	_____

Course	Title	Credits	Grade/Sem
Year 3 - Fall Semester			
EGEN 335	Fluid Mechanics	3	_____
EGEN 350	Statistics	2	_____
ELEC 250	Circuits	4	_____
EMEC 320	Thermodynamics I	3	_____
EMEC 341	Advanced Mechanics of Materials	3	_____
ETME 215	Manufacturing Process	3	_____
ETME 217	Manufacturing Process Lab	1	_____
Subtotal		19	_____

Year 3 - Spring Semester			
EGEN 310	Multidisc Engineering Design	3	_____
EMEC 303	Systems Analysis	3	_____
EMEC 321	Thermodynamics II	3	_____
EMEC 326	Heat Transfer	3	_____
EMEC 342	Mechanical Component Design	3	_____
EMEC 360	Measurement and Instrumentation	3	_____
EMEC 361	Measurement and Instrumentation Lab	1	_____
Subtotal		19	_____

Course	Title	Credits	Grade/Sem
Year 4 - Fall Semester			
EMEC 425	Advanced Thermal Systems	3	_____
EMEC 445	Mechanical Vibrations	3	_____
EMEC 489	Capstone I	2	_____
Professional Electives		6	_____
University Core (Art, Humanities, or Diversity)		3	_____
Subtotal		17	_____

Year 4 - Spring Semester			
EGEN 488	FE Exam	0	_____
EMEC 499	Capstone II	3	_____
Professional Electives		9	_____
University Core (Art, Humanities, or Diversity)		3	_____
Subtotal		15	_____

Electives must include: 15 credits of approved professional electives at the 300 level or above. The professional elective courses must comply with the Mechanical Engineering Professional Elective Policy. Students must successfully complete all key courses prior to taking any professional electives. A student may petition to include other senior or graduate level courses consistent with the degree program but not listed here (requires Academic Advisor and Department Head approval).

A minimum of 128 credits is required for graduation; 42 of those credits must be in courses numbered 300 and above.