

May 27, 2021

**Articulation Agreement**

Offered collaboratively by

MONTANA TECHNOLOGICAL UNIVERSITY

And

MILES COMMUNITY COLLEGE

Bachelor of Science in Electrical Engineering

**I. Scope of Program**

Montana Technological University (Montana Tech) and Miles Community College (MCC) hereby establish an articulation agreement leading to a Bachelor of Science degree in Electrical Engineering (EE.) The degree will be conferred by Montana Tech.

**II. Length of Agreement**

This agreement is made and entered into in the academic year of 2020-2021 and will be reviewed annually. The agreement may be amended with the approval of both parties. If either curricula changes, it is the responsibility of the respective institutions department head to reach out to the liaison between schools to update and re-evaluate revisions or additions made in the program.

**III. Course Articulation**

Students completing the Associate of Science degree in the Science, Technology, Engineering and Math (STEM) pathway at MCC, successfully completing the courses outlined in the curriculum worksheet in the appendix, will be granted 41 semester credits at Montana Tech from their MCC transcripts. Students from MCC not completing the full AS in STEM will be evaluated on a course by course basis, with known equivalences and substitutions noted in the appendix. Graduation from Montana Tech requires completion of general education courses, some or all of which may be part of the 41 credits transferred in from MCC. The student must earn a total of 134 credits, complete the EE program courses and all graduation requirements in order to graduate from Montana Tech and be awarded a Bachelor of Science in Electrical Engineering. The outline of course requirements, transfer credit, and pre-approved substitutions are included as an appendix. The credits noted in parentheses for each term, typed in red, are the credits remaining to be completed that term after MCC course equivalences and substitutions are applied. Students participating in this program will be required to meet the Montana University System's transfer student policies in effect at the time of the student's most current enrollment at MCC. Course equivalences must be applied towards the appropriate catalog curriculum. For catalog details, refer to Montana Board of Regents of Higher Education Policy and Procedures Manual; Subject Academic Affairs; Policy 301.14.



Montana Tech's Bachelor of Science degree in Electrical Engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET and and MT Tech is regionally accredited through the Northwest Commission on Colleges and Universities (NWCCU). MCC is regionally accredited through the Northwest Commission on Colleges and Universities (NWCCU).

**IV. Department Contacts and Marketing**

Both MCC and Montana Tech agree to the following:


- a. Both parties may inform potential students about the program. Examples include, but are not limited to, media announcements, brochures, information sessions, and advising sessions.
- b. Provide points of contact for each institution:

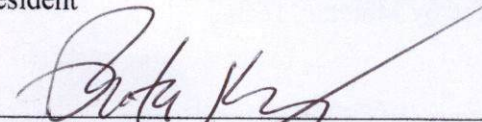
Miles Community College  
Erin Niedege  
Dean of Enrollment Management and  
Educational Support Services

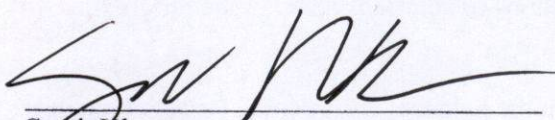
Montana Tech  
Debbie Luft  
Senior Admissions Representative

**V. Signatures**

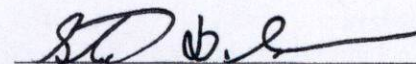
Miles Community College


  
\_\_\_\_\_  
Ron Slinger  
President


  
\_\_\_\_\_  
Dr. Rita Kratky  
Vice President of Academic Affairs

  
\_\_\_\_\_  
Sarah Kloewer  
Division Chair

Montana Tech

  
\_\_\_\_\_  
Dr. Steven Gammon  
Provost/Vice Chancellor Academic Affairs

  
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Dr. Daniel Trudnowski  
Dean of the School of Mines & Engineering

  
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Dr. Bryce Hill  
Department Head, Electrical Engineering



# Appendix

Transfer Plan with Miles Community College

MT Tech Catalog: 2020-2021 Catalog Program: <b>Electrical Engineering, B.S.</b>				
Student ID:		Student Name:		
Adviser Name:				
<b>Electrical Engineering, B.S.</b>				
<b>Freshman</b>				
<b>Fall Semester</b>				
Course Name	MT Tech Credits	Term Taken	Gen Ed	MCC course
CHMY 141 - College Chemistry I	3 credits	MCC		
CHMY 142 - College Chemistry Laboratory I	1 credit	MCC		
EGEN 101 - Introduction Engineering Calculations & Problem Solving	3 credits	MCC		
M 171 - Calculus I	3 credits	MCC		
Humanities or Social Science Elective 3 credits**	3 credits	MCC	HUM	
EGEN 194 - Freshman Engineering Seminar	1 credit	MCC		COLS 101
WRIT 121 - Introduction To Technical Writing	3 credits	MCC		
-OR-				
WRIT 101 - College Writing I	3 credits			
<b>Total: 17 (0)</b>				
<b>Spring Semester</b>				
Course Name	Credits	Term Taken	Gen Ed	MCC course
M 172 - Calculus II	3 credits	MCC		
PHSX 234 - General Physics-Mechanics	3 credits	MCC		PHSX 220 - Physics I (w/calculus)
EELE 101 - Introduction to Electrical Fundamentals	1 credit	MCC		CHMY 144 - College Chemistry II Lab
Humanities or Social Science Elective 3 credits**	3 credits	MCC	SS	
<b>Total: 13 (0)</b>				
<b>Sophomore</b>				
<b>Fall Semester</b>				
Course Name	Credits	Term Taken	Gen Ed	MCC course
EELE 201 - Circuits I for Engineering	3 credits			
EELE 202 - Circuits I for Engineering Lab	1 credit			
M 273 - Multivariable Calculus	4 credits			
PHSX 235 - General Physics-Heat, Sound & Optics	3 credits			
PHSX 236 - General Phy-Heat, Sound & Optics Lab	1 credit	MCC		PHSX 221 - Physics I Lab
CSCI 112 - Programming with C I	3 credits	MCC		CSCI 116 - Introduction to Python Programming
-OR-				
CSCI 135 - Fundamentals Of Computer Science I	3 credits			
ECNS 201 - Principles of Microeconomics	3 credits	MCC	SS	
-OR-				
ECNS 202 - Principles of Macroeconomics	3 credits			
-OR-				
ECNS 203 - Principles of Micro and Macro	3 credits			
<b>Total: 18 (11)</b>				
<b>Spring Semester</b>				
Course Name	Credits	Term Taken	Gen Ed	MCC course
CSCI 117 - Programming with Matlab	3 credits			
EGEN 201 - Engineering Mechanics-Statics	3 credits			
EELE 261 - Intro to Logic Circuits	3 credits			
M 274 - Introduction to Differential Equation	3 credits			
PHSX 237 - General Physics-Electricity, Magnetism & Motion	3 credits	MCC		PHSX 222 - Physics II (w/calculus)
PHSX 238 - General Physics-Electricity, Magnetism & Motion Lab	1 credit	MCC		PHSX 223 - Physics II Lab
CSCI 255 - Introduction to Embedded Systems	3 credits			
<b>Total: 19 (15)</b>				
<b>Junior</b>				
<b>Fall Semester</b>				
Course Name	Credits	Term Taken	Gen Ed	MCC course
EELE 203 - Circuits II for Engineering	4 credits			
EGEN 202 - Engineering Mech-Dynamics	3 credits			
M 333 - Matrices & Linear Algebra	3 credits			
EELE 355 - Electric Machine Fundamentals (core)***	3 credits			
EELE 394 - Seminar	1 credit			
PHSX 423 - Electricity & Magnetism I	3 credits			



<b>Total: 17 (17)</b>									
<b>Spring Semester</b>									
<b>Course Name</b>	<b>Credits</b>	<b>Term Taken</b>	<b>Gen Ed</b>	<b>MCC course</b>					
EELE 320 - Process Instrumentation & Control	4 credits								
WRIT 321W - Advanced Technical Writing	3 credits								
EELE 317 - Electronics (core)***	4 credits								
EELE 308 - Signals and Systems Analysis (core)***	4 credits								
EELE 454 - Power Systems Analysis	3 credits								
<b>Total: 18 (18)</b>									
<b>Senior</b>									
<b>Fall Semester</b>									
<b>Course Name</b>	<b>Credits</b>	<b>Term Taken</b>	<b>Gen Ed</b>	<b>MCC course</b>					
EELE 321 - Intro to Feedback Controls (core)***	3 credits								
EELE 445 - Telecommunication Systems (core)***	3 credits								
STAT 332 - Statistics for Scientists and Engineers	3 credits								
EELE 488W - Electrical Engineering Design I (core)***	2 credits								
BGEN 363 - Business Ethics and Decision Making	3 credits		HUM						
Free Elective 3 credits*	3 credits								
<b>Total: 17 (17)</b>									
<b>Spring Semester</b>									
<b>Course Name</b>	<b>Credits</b>	<b>Term Taken</b>	<b>Gen Ed</b>	<b>MCC course</b>					
EELE 489W - Electrical Engineering Design II (core)***	2 credits								
EELE 486 - Fundamentals of Engineering Exam for EE	1 credit								
EGEN 325 - Engineering Economic Analysis	3 credits								
Professional Elective 6 credits ****	6 credits								
EGEN 324 - Applied Thermodynamics	3 credits								
-OR-									
EGEN 335 - Fluid Mechanics	3 credits								
<b>Total: 15 (15)</b>									
<b>Minimum credits for a B.S. degree in Electrical Engineering if transferring from MCC with A.S. in STEM:</b>									
93									
<b>Minimum credits for a B.S. degree in Electrical Engineering: 134</b>									
*Any 1xx course or higher									
**See Catalog for list of approved Humanities/Fine Arts and Social Science courses meeting the general ed requirement. EE requires 6 credits of Humanities and 6 credits of social science electives. BGEN 363 can count towards 3 credits humanities elective and ECNS can count towards 3 credits social science electives.									
***These are CORE courses that must be completed at Montana Tech (no transfer classes allowed).									
****Professional Electives are restricted to EELE 400 level or higher excluding EELE 498.									
<b>Notes:</b>									