

## Academic Pathways Map

### Applied Mathematical Sciences Transfer to MT Tech

A.S. Jumpstart  
Engineering and Math

#### Start Here

SEMESTER 1		CREDITS	MILESTONE	✓
M171	Calculus I	4	*	
Choose 1 of 3	BIOB160, BIOH201, CHMY141	4	*	
WRIT121	Introduction to Technical Writing	3		
Choose 1 of 3	PHL110, SPNS101, SPNS102	3 - 4		
COLS101	First Year Seminar	3		

TOTAL CREDITS 17 -18

SEMESTER 2		CREDITS	MILESTONE	✓
M172	Calculus II	4	*	
Choose 1 of 3	BIOB101, BIOH211, CHMY143	4	*	
Choose 1 of 3	PHL110, SPNS101, SPNS102	3 - 4		
COMX111	Introduction to Public Speaking	3		

TOTAL CREDITS 14 -15

SEMESTER 3		CREDITS	MILESTONE	✓
PSYX120	Research Methods I	3		
ECNS201	Principles of Microeconomics	3		
CSCI100	Introduction to Programming	3		
Choose 1 of 3	PHL110, SPNS101, SPNS102	3-4		
PHSX220	Physics I (w/Calculus)	4		

TOTAL CREDITS 16-17

SEMESTER 4		CREDITS	MILESTONE	✓
Choose 1 of 3	ANTY101, PSYX230, SOCI101	3		
NASX105	Introduction to Native American Studies	3		
CSCI111	Programming with Java I	3		
ECNS202	Principle of Macroeconomics	3		
STAT216	Introduction to Statistics	3		

TOTAL CREDITS 15

**You are finished!**



**Pathway Advising Notes:** This is a Jumpstart Pathway. Courses taken at Helena College will transfer to Montana Technological University and will satisfy most of the coursework required in the first two years of the Applied Mathematics degree.

- Some courses are offered on the MT Tech campus only, which can be taken after transfer.
- M273 Multivariable Calculus and M274 Differential can be taken at MT Tech.

**Course Advising Notes:** M171: Students not prepared for M 171 their first semester should consider taking M 151 the summer prior. Mt Tech required course

1 of BIOB160, BIOH201, CHMY141: Student should choose a 2-semester sequence that best suits their career goals. The student may alternatively take PHSX 222 – see Physics option. Mt Tech required course sequence

WRIT121: WRIT 101 allowed in place of WRIT 121

1 of PHL110, SPNS101, SPNS102: PHL 110 strongly encouraged but can choose any of these options. H&FA courses shown satisfy MT Tech Gen Ed requirements and HC requirements. Can be taken any semester.

M172: MT Tech required course

1 of BIOB101, BIOH211, CHMY143: Course should match the sequence taken in Semester 1. Course sequence for BIOB 160 is BIOB 101 and not BIOB 170. Mt Tech required course sequence

1 of PHL110, SPNS101, SPNS102: H&FA courses shown satisfy MT Tech Gen Ed requirements and HC requirements. Can be taken any semester. Take 2nd of 3 course options

COMX111: MT Tech required course

ECNS201: Mt Tech required course

CSCI100: Course pre-requisite for MT Tech required CSCI 111.

1 of PHL110, SPNS101, SPNS102: Take 3rd of 3 course options

PHSX220: Take PHYS 205 Physics Using Calculus I: Mechanics at Carroll College

NASX105: D & CHAI, course offered every fall, spring, and summer semester.

CSCI111: MT Tech required course

ECNS202: MT Tech required course

### **Career Info:**

The 2023 median pay for mathematicians and statisticians was \$104,860 per year, according to the United States Department of Labor Bureau of Labor Statistics. Overall employment is projected to grow 11 percent through 2033.