

Associate in Applied Science (AAS)**Machine Trades**

Prepare for a job as a machinist, millwright, and tool and die maker, or another occupation related to manufacturing through LCC's Machine Trades program. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

Degree Requirements

- **Communications:**
5 credits - ENGL 110 Industrial Communications
- **Quantitative/Symbolic Reasoning Skills:**
5 credits – MATH 106 Industrial Mathematics
- **Human Relations/ Social Science:**
5 credits – BUS 144 Management of Human Relations is recommended.
- **Humanities/ Natural Sciences:**
5 credits – DHET 240 Fluid Power/Electrical Theory & Design OR TECH 100 Advanced Principles of Technology OR MFG 130 Materials Science OR choose from the Distribution List.
- **Diversity:**
5 credits – From the Diversity Course List. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by 'DIV' attached to the course title.

Program Requirements

BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First-Aid, CPR and Bloodborne Pathogens	1
MASP 111	Machine Shop I	10
MASP 112	Machine Shop II	10
MASP 113	Machine Shop III	10
MASP 204	CNC Machining Center Fundamentals	3
MASP 205	CNC Turning Center Fundamentals	3
MASP 221	CNC Milling	10
MASP 222	CNC Turning	10
MASP 223	Advanced CNC Processes	10
MFG 100	Foundational Skills for the Trades	3
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
MFG 230	Computer Integrated Manufacturing	4

Diversity and Distribution Lists are available in the Lower Columbia College Academic Catalog and at lowercolumbia.edu/catalog.

Total credits required to earn this degree: 107 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).

- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Demonstrate competencies required for entry level machinist.
- Interpret industrial blueprints to accurately inspect machined parts.
- Demonstrate competency in documenting and communicating work performed using trade specific language.
- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Program computer numerical control (CNC) mill and CNC lathe to manufacture parts per specification.
- Apply CAD/CAM software to design and manufacture parts per specification.

Revised June 2019 (Effective Summer 2019)

Planner

The distribution lists are in the LCC Catalog. If you are online, click on the links below:

Diversity Course List

Distribution List

Advisor: Kam Todd, (360) 442-2745, ktodd@lowercolumbia.edu, Nathan Shepherd, (360) 442-2746, nshepherd@lowercolumbia.edu

Fall Quarter			Winter Quarter			Spring Quarter			Summer Quarter		
√	Courses	Crs	√	Courses	Crs	√	Courses	Crs	√	Courses	Crs
	MASP 111 (A)	10		MASP 112 (A)	10		MASP 113 (A)	10			
	MFG 100 (A)	3		BLPT 150 (W)	5		MASP 204 (A)	3			
	MFG 115 (F)	5		MFG 105 (A)	3		MATH 106 (A)	5			
				HLTH 105 (A)	1						
	Total:	18		Total:	19		Total:	18		Total:	

Fall Quarter			Winter Quarter			Spring Quarter			Summer Quarter		
√	Courses	Crs	√	Courses	Crs	√	Courses	Crs	√	Courses	Crs
	MASP 221 (F, W, Sp)	10		MASP 222 (F,W,Sp)	10		MASP 223 (F,W,Sp)	10			
	MASP 205 (A)	3		ENGL 110 (A)	5		MFG 230 (Sp)	4			

Fall Quarter			Winter Quarter			Spring Quarter			Summer Quarter		
√	Courses	Crs	√	Courses	Crs	√	Courses	Crs	√	Courses	Crs
	MFG 130 (F)	5					BUS 144 (A)	5			
Total:		18	Total:		15	Total:		19	Total:		

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Notes:

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.

Legend:

- A - Course usually offered all quarters.
- F - Course usually offered Fall Quarter.
- W - Course usually offered Winter Quarter.
- Sp - Course usually offered Spring Quarter.
- S - Course usually offered Summer Quarter.

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