

Certificate of Proficiency (COP)

Machinist

The Machine Trades certificate program is another route to employment as a machinist, millwright, tool and die maker, or other occupation related to manufacturing. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

Certificate Requirements

- **Communications:**
5 credits - ENGL 110 Industrial Communications is recommended.
- **Quantitative Skills:**
5 credits – MATH 106 Industrial Mathematics.
- **Human Relations/ Social Sciences:**
5 credits – BUS 144 Management of Human Relations is recommended.

Program Requirements

BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MASP 112	Machine Shop II	10
MASP 113	Machine Shop III	10
MFG 100	Foundational Skills for the Trades	3
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
WELD 155	Intro to Arc Welding	6
MASP 107 AND/OR MASP 111	Machining for Related Occupations <i>AND/OR</i> Machine Shop I (2-10 cr variable) for a combined total of 10 credits	10

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

Total credits required to earn this certificate: 68.

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 for inspection of machined parts.

- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Demonstrate competency in documenting and communicating work performed using trade specific language.

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Planner

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1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
√	Courses	Crs	√	Courses	Crs	√	Courses	Crs	√	Courses	Crs
	MFG 100 (A)	3		BLPT 150 (W)	5		BUS 144 (A)	5		ENGL 110 (A)	5
	MASP 107 (A) AND/ OR MASP 111(A)	10		MASP 112 (A)	10		MASP 113 (A)	10			
	MFG 115 (F)	5		MATH 106 (A)	5		WELD 155 (A)	6			
	HLTH 105 (A)	1		MFG 105 (A)	3						
	Total:	19		Total:	23		Total:	21		Total:	5

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. 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.