

Associate in Applied Science - Transfer (AAS-T)

Machine Trades

for LCC BAS-OLTM

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. This program also meets the academic requirements to apply for admittance into Lower Columbia's Bachelor of Applied Science degree in Organizational Leadership and Technical Management which prepares industry professionals for positions in leadership, management and supervision.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- [Machine Trades Associate in Applied Science - Transfer \(AAS-T\) for LCC BAS-OLTM \(lowercolumbia.edu/program-maps/trades/AAS-T-Machine-Trades-to-BAS-OLTM\)](https://lowercolumbia.edu/program-maps/trades/AAS-T-Machine-Trades-to-BAS-OLTM)

Degree Requirements

Total credits required to earn this degree: 110 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for associate degrees and specific certificates. See [Diversity and Distribution Lists \(lowercolumbia.edu/publications/catalog/distribution-lists/\)](https://lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**
5 credits - ENGL& 101 English Composition I
- **Quantitative Skills:**
5 credits – MATH& 107 Math in Society or higher except for MATH& 131
- **Natural Sciences:**
5 credits – Natural Science with lab from the *Distribution List*
- **Diversity / Human Relations:**
5 credits – BUS 144 Management of Human Relations: DIV

Program Requirements

Course Code	Course Title	Number of Credits
BLPT 150	Machinists Blueprint Reading	5
CS 110	Introduction to Microcomputer Applications	3
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 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
MFG 230	Computer Integrated Manufacturing	4
COLL 289	Employment Portfolio Seminar	1
MASP 288	Cooperative Work Experience	2

3 credits of WELD 105 may be substituted for COLL 289/MASP 288 with program advisor permission.

Program Outcomes

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.

Notes

Revised May 2023 (effective Summer 2023)

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.