

APPLIED INDUSTRIAL TECHNOLOGY (LIFTING TECHNOLOGIES), ASSOCIATE OF APPLIED SCIENCE



Students must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training. A four year apprenticeship emphasizes the skill set required to be a highly skilled craftsman.

Effective Spring 2025, new students will no longer be accepted into this program.

Program contact: Learn more

Program Admission Requirements

- High School Diploma/GED
- Participant must be an employee of Mazella Lifting Technologies

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Inspect, evaluate, and report on condition of overhead cranes and rigging gear, and prioritize findings from the inspection in accordance with regulatory and industry standards.
2. Perform routine, preventative, and required maintenance, repair, and testing of overhead cranes and rigging gear in accordance with manufacturers', regulatory, and industry standards.
3. Analyze customers' needs, research existing technologies, and apply appropriate technologies to upgrade overhead cranes and rigging gear.
4. Develop, specify, and manufacture overhead cranes and specialized rigging gear to support the demands of customer applications using current communication technologies and tools.
5. Apply the Mazzella Way and integrate it into all interactions.
6. Utilize Mazzella inspection, testing, reporting, and ERP software.
7. Operate specialized equipment and utilize Mazzella manufacturing techniques for rigging gear.
8. Observe and apply quality assurance techniques and ISO quality management system, standards, and processes.
9. Practice 5S and Lean Manufacturing techniques.

10. Demonstrate effective listening, verbal, written and conflict management skills to communicate accurately and respectfully with coworkers and customers.
11. Comply with applicable internal and industry safety standards.

Suggested Semester Sequence

First Semester		Credit Hours
ATLT-1000	Orientation for Lifting Tech	2
ATLT-1010	Industrial Safety	1
ATLT-1020	Introduction to Lifting & Rigging	2
ATLT-1040	Safety in Lifting and Rigging I	1
ATLT-1050	Rigging Geometric	2
DEGR-xxxx	General Elective (See List Below)	3
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
Credit Hours		14
Second Semester		Credit Hours
ATLT-1030	Introduction to Wire Rope	1
ATLT-1060	Layout & Fabrication Procedure	1
ATLT-1070	Blue Print Reading for Rigging I	2
ATLT-1080	Lifting Technologies Safety Training	1
ATLT-1090	Introduction to Welding for Lifting Technologies	2
Any Approved Ohio Transfer 36 Mathematics course ¹		3
DEGR-xxxx	General Elective (See List Below)	3
Communication/Mathematics/Natural Science requirement		3
Credit Hours		16
Third Semester		Credit Hours
ATLT-1100	Introduction to Inspections: Field Tablets IC3	1
ATLT-1110	Technologies in Rigging	1
ATLT-2010	Lifting Project Module	1
ATLT-2020	Proof Test Operations	1
ATLT-2040	Wire Rope Applications I	1
ATLT-xxxx	Elective (see technical elective list)	2
ATLT-xxxx	Elective (see technical elective list)	2
DEGR-xxxx	General Elective	3
Arts and Humanities/Natural and Physical Sciences requirement		3
Credit Hours		15
Fourth Semester		Credit Hours
AIT-2990	Contracting in a Diverse World	3
DEGR-xxxx	General Elective (see general elective list)	2
ATLT-xxxx	Elective (see technical elective list)	2
ATLT-xxxx	Elective (see technical elective list)	2
Social and Behavioral Sciences		3
DEGR-xxxx	General Elective	3
Credit Hours		15
Total Credit Hours		60

¹ MATH-1100 Mathematical Explorations or MATH-1240 Contemporary Mathematics taken prior to Fall 2024 will be accepted to meet Mathematics requirement.

Electives

Select from below courses to fulfill Technical Elective Requirements.

Code	Title	Credit Hours
ATLT-2050	Blue Print Reading for Rigging II	2
ATLT-2130	Overhead Crane Electrical	2
ATLT-2140	Overhead Crane Mechanical	2
ATLT-2170	Overhead Crane Inspector	2
ATLT-2280	Overhead Crane Inspect Safety	2
ATLT-2500	Rigging Inspector Certification	3
ATLT-2510	Sling Fabrication - Flat Web & Chain	1
ATLT-2520	Socketing	1

Select from below courses to fulfill General Elective Requirements.

Code	Title	Credit Hours
ACCT-1011	Business Math Applications	3
ACCT-1020	Applied Accounting	3
BADM-1020	Introduction to Business	3
BADM-1070	Introduction to Project Management	3
BADM-2110	Production/Operations Management	3
BADM-1122	Principles of Management and Organizational Behavior	3
BT-1001	Keyboarding	2
BT-1150	Word for Business Documents	3
BT-2211	Presentation Software	3
FIN-1061	Personal Finance	3
HLTH-1230	Standard First Aid and Personal Safety	1
HLTH-1100	Personal Health Education	3
IT-1090	Computer Applications	3
IT-109H	Honors Computer Applications	3
MET-1300	Engineering Materials and Metallurgy	3
Any course in Communications		3
MATH-1xxx	1000-level MATH course or higher	3
Any course in Arts and Humanities/Social and Behavioral Sciences/Natural and Physical Sciences		

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.