A.A.S. Degree in Mechanical Technology

Mechanical Technologists are employed in a variety of industries, ensuring the smooth, effective operation of the systems that are taken for granted in everyday life. This degree program prepares students to enter the workforce after graduation to aid engineers with the design, development, testing, and manufacturing of industrial machinery and consumer products.

The Mechanical Technology degree program provides you with the technical skills that are required for entry-level positions in the field of mechanical drafter or designer, or in the area of a manufacturing, assembly or test technician. This program prepares you to use 2D and 3D CAD (computer-aided design and drafting) software as a design, drafting, and presentation tool in the workforce. You will learn the knowledge and technical skills that will enable you to assist engineers with designing, developing, testing, and manufacturing industrial machinery, consumer products, support and test equipment (STE), and other equipment. Instruction emphasizes developing technical competence and engineering analysis, and utilizes computer-aided drafting (CAD).

With your FLCC education, you'll be ready to get right to work. Graduates of this program have found employment at several regional companies such as Refractron, G.W. Lisk, H.M. Cross, Ultrafab, Cliftronics, and Gorbel. Grads go on to land positions in these types of sample of industries:

•	Machine, tool and product
	designer

Field technician

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Industrial laboratory technicianSafety technician

- Production control technician Inspector
- CAD Designer

Sales technician

<u>Curriculum Requirements</u>: As a student in the Mechanical Technology program, you are required to complete 64 college credit hours with an FLCC Transcript grade point average of no lower than C (2.0). For this degree program, you must successfully complete the following (under College Courses).

Year 1: 9 th Grade	High School Courses	College Courses
Focus: academic success in all courses, review	ELA 9	Computing Science Portal: CSC 103 **
requirements towards high school diploma,	Global Studies I	Core Excel: CSC 135 **
professional skill development, interest survey and	Living Environment *	
exploration in P-TECH pathways and chose	Algebra I *	
pathway by year's-end, introductory college	Foreign Language ^	
courses, industry speakers.	Physical Education 9	
	Study Skills (Professional and Thinking Skills)	

Year 2: 10 th Grade	High School Courses	College Courses
Focus: academic success in all courses, review and	ELA 10	Computer Imaging: ART 115 **
audit transcript towards high school diploma,	Global Studies II *	Health: HPE 212 **
professional skill development, further exploration	Earth Science *	Tech Core Level 1 ** @
of career options, industry partners participate in	Algebra II *	
projects and offer tours, begin full year of college	Physical Education 10	
courses.		

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This is an overview of this pathway and can differ from student to student depending on what high school credits and courses a student may complete in 8th grade and how each student completes planned P-TECH courses (both high school and college).

Year 3: 11 th Grade	High School Courses	College Courses
Focus: academic success in all courses, review and	ELA 11	College Algebra: MAT 145 **
audit transcript towards high school diploma,	U.S. History and Government *	Tech Core Level 2 ** @
professional skill development, further	Applied Science or Chemistry * #	Emerging Technologies: TECH 116 **
exploration of career options, visit industries,	Algebra III (if do not meet MAT 145 pre-req)	
industry partners participate in projects and offer	Physical Education 11	
tours, begin cover letter & resume development,		
interview training, research and plan for work-		
based learning experiences.		

Year 4: 12 th Grade	High School Courses	College Courses
Focus: complete academic requirements towards	Physics *	Composition I: ENG 101 **
high school diploma, review and audit college	ELA 12A (if do not meet ENG 101 pre-req)	Composition II: ENG 103 **
transcript, refine cover letter & resume, continue	ELA 12B (if do not meet ENG 101 pre-req)	American Government: POL 100 **
interview training, engage in work-based		Principles of Macroeconomics: ECO 210 **
experiences, register for full-time enrollment at		Pre-Calculus: MAT 152 **
Finger Lakes Community College		Physical Education- Walk and Jog: HPE 121 **
		Physical Education-Lifetime Fitness: HPE 125 **
		Tech Core Level 3 ** @
		Human Communication: COM 100 **

Year 5: 13 th Grade (first full year at FLCC)	High School Courses	College Courses
Focus: full-time enrollment in Finger Lakes		College Physics I: PHY 118 ~
Community College, meet with P-TECH liaison,		College Physics II: PHY 119 ~
update cover letter & resume, continue interview		Material Science: MET 101 ~
training, internship and career searches, engage in		Engineering Graphics: ESC 105 ~
work-based experiences and internships		Technology Freshman Seminar: MET 115 ~
		Manufacturing Processes: MET 104 ~
		Engineering Drawing II: MET 106 ~

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Mechanical Technology

Year 6: 14 th Grade (second full year at FLCC)	High School Courses	College Courses
Focus: full-time enrollment in Finger Lakes		Engineering Drawing III: MET 205 ~
Community College, meet with P-TECH liaison,		Statics and Strength of Materials: MET 216 ~
finalize cover letter & resume, complete work-		Machine Design: MET 220 ~
based experiences and internships, complete		Dynamics & Strengths of Materials: MET 217 ~
A.A.S. degree and graduate, apply for jobs and		Machine Design: MET 221 ~
prepare for interviews, if choose: apply for		Approved Mechanical Technology Elective ~
enrollment in a four-year college program		Mechanical Technology Capstone Project: MET 255 ~

- * Course leading to NYS Regents Examination; Required for Regents Diploma/Graduation (4+1)
- ** Dual-credit course: counts toward both high school and college credits
- ^ Required for high school diploma, usually completed for credit by end of 8th grade
- # Depends on which course is available for that school year
- ~ FLCC college courses completed in years 5 & 6 and order of completion determined by student and FLCC advisor
- @ Tech Core Sequence for Mechanical Technology: Combined FLCC courses over a three-year sequence:
 - Electronic Theory: TECH 122
 - Engineering Graphics: ESC 105 (proposed Nov 2018)

Additional information on the A.A.S. degree in Instrumentation & Control Technologies can be found at the Finger Lakes Community College website: <u>Mechanical Technology</u>

- Program Overview
- <u>Curriculum Requirements</u>
- <u>Course Descriptions</u>
- <u>Sample Schedule</u>

College Courses and A.A.S. degree requirements are established by FLCC and may be updated at their discretion

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