



# Mechatronics

curriculum code: 2450 | HEGIS code: 5311

minimum credit hours required: 63

Mechatronics is an interdisciplinary field that combines elements of engineering, machining, information technology, robotics, and electronics. It synergizes these diverse fields to keep production lines, manufacturing floors, and industry processes working smoothly. Graduates of this program will be prepared to operate and maintain electro-mechanical systems found in automated or robotically controlled environments. Program components include comprehensive analysis, assembly, and troubleshooting techniques, which are reinforced through laboratory experiences. **Program will require students to attend some classes on the Jamestown Campus.**

REQUIRED COURSES	CR	JCC	SUNY	LAS
INT 1555: Inquire	2	Inquiry- Critical & Integrative Reasoning		X
ENG 1510: English Composition I	3	College Composition	HUMN	H
ENG 1530: English Composition II	3	College Comp & Oral Communication	COMW & COMO	H
MAT 1590: College Algebra/Trigonometry	4	SUNY Mathematics & Quantitative Reasoning	MATH	N
PHY 1500: Foundational Physics	4	SUNY Natural Science & Scientific Reasoning	NSCI	N
Social Sciences Elective - SUNY Gen Ed	3	SUNY Social Science	SOSC	S
MCT 2220: Automation & Robotics	3	Applied Learning		
CSC 1510: Intro to Computer Sciences, CSC 1560: Computer App Software I, or MCT 1380: Introduction to Solid Modeling	3-4			
CSC 1580: Computer Hardware/Systems Software	3			N
ELC 1200: Fundamentals of Electricity	3			
ELC 1220: Industrial Automations Using PLC	3			
ELC 1230: Electric Motors & Control Systems	3			
MCT 1210: Applied Pneumatics & Hydraulics	3			
MCT 1240: Engineering Drawing with AutoCAD	4			
MCT 1270: Machine Theory and Operations	3			
MCT 1280: Computer Numerical Control of Machine Tools	3			
MCT 1310: Industrial Safety & Quality Practices	2			
MCT 1320: Production Processes & Maintenance Awareness	2			
MCT 2210: Mechanical Drives	3			
ELC 2220: Advanced Programmable Logic Controllers	3			
Open Electives up to 3 credits may need to be SUNY Gen ed- category specific and may need to fill JCC Essentials Global Perspective, Cultural Understanding, and Diversity requirements.	3	(Cultural Understanding; Global Perspectives, Diversity)	(DIVE) [3 credits]	
<b>TOTAL CREDITS: 60</b>			20	22