



# Mechatronics

## Program Information

**Degree Type:** AAS

**Program Code:** MECA

**Degree Worksheet PDF:**  [2023\\_2024\\_meca.pdf \[1\]](#)

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MECA

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This degree program provides hands-on and theoretical studies of automated robotic, mechanical, & electrical systems and the electronics (transistor circuits) used to control them. The course of study includes; Programmable Logic Controllers (PLC's), Human Machine Interfaces (HMI), sensor technology (instrumentation), pneumatics/hydraulics, solids modeling and robotics. Lab classes introduce the Digital Multi Meter (DMM), electronic test equipment, robots and robot programming, hydraulics/pneumatics, and solid modeling. As an elective the student can pursue an Internship with local industry for college credit, often providing a pathway to future employment.

Cr.	Course Title	Course Code
1-2	FRESHMAN EXPERIENCE	<a href="#">HRD100</a> <a href="#">HRD100A</a> or <a href="#">HRD110</a>
3	Introduction to College Writing	<a href="#">ENG101</a>
3		SUNY GEN ED Basic Communication  <a href="#">ENG102</a> , <a href="#">ENG103</a> , <a href="#">ENG104</a> ,  <a href="#">ENG105</a> , <a href="#">ENG106</a> , <a href="#">ENG107</a> ,  <a href="#">ENG108</a> , <a href="#">ENG109</a> or <a href="#">ENG110</a>
3-4		<a href="#">MAT108</a> , <a href="#">MAT121</a> , <a href="#">MAT125</a> or



		<a href="#">MAT131</a>
4	SUNY Gen Ed Natural Sciences lab science	
3	SUNY Gen Ed Social Sciences	
3	Introduction to Networking	<a href="#">CIS131</a>
3	Introduction to Technology	<a href="#">TEC101</a> (Fall only)
3	Electrical Systems and Distribution	<a href="#">TEC103</a> (Fall only)
3	Engineering Graphics and CAD	<a href="#">EGR109</a> (Spring only)
4	Electricity I	<a href="#">TEC119</a> (Fall only - Pre/Coreq Required)
4	Electricity II	<a href="#">TEC120</a> (Spring only - Prereq Required)
3	Motors and Controls	<a href="#">TEC223</a> (Fall only - Prereq Required)
3	Electronics I	<a href="#">TEC241</a> (Spring only - Prereq Required)
3	Introduction to PLC's	<a href="#">TEC250</a> (Fall only - Prereq Required)
3	PLC II and Sensors	<a href="#">TEC251</a> (Spring only - Prereq Required)
3	Robotics I	<a href="#">TEC264</a> (Fall only - Prereq Required)
3	Robotics II	<a href="#">TEC265</a> (Spring only - Prereq Required)
3	Hydraulics and Pneumatics	<a href="#">TEC266</a> (Spring only - Prereq Required)
3	TECHNICAL ELECTIVE	CIS, EGR, or TEC Elective
3	<a href="#">Liberal Arts and Sciences</a> [3]	
<b>64</b>	<b>Minimum credits required for graduation</b>	

<b>Recommended First Year</b>	
<b>First Semester</b>	
1-2	HRD100, HRD100A or HRD110
3	ENG101
3-4	MAT108, MAT121, MAT125 or MAT131
3	TEC101
3	TEC103
4	TEC119
<b>Second Semester</b>	
3	CIS131
3	ENG102 - ENG110
4	TEC120
3	EGR 109 (See Note 1)
4	SUNY Gen Ed Natural Science lab science
<b>Recommended Second Year</b>	
<b>Third Semester</b>	



3	SUNY Gen Ed Social Sciences
3	CIS, EGR or TEC Technical Elective (See Note 2)
3	TEC223
3	TEC250
3	TEC264
<b>Fourth Semester</b>	
3	Liberal Arts and Sciences
3	TEC266
3	TEC241
3	TEC251
3	TEC265

**NOTES**

1. Students will be eligible to take the Certified SOLIDWORKS Associate in Mechanical Design examination.
2. Technical Electives are CIS, EGR or TEC courses.

**Source URL:** <https://catalog.sunyacc.edu/programs/mechatronics>

**Links:**

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[2] [https://catalog.sunyacc.edu/sites/catalog.sunyadk.com/files/degreeworksheets/2023/2023\\_2024\\_meca.pdf](https://catalog.sunyacc.edu/sites/catalog.sunyadk.com/files/degreeworksheets/2023/2023_2024_meca.pdf)  
[3] <http://catalog.sunyacc.edu/academics/degreerequirements>