PROGRAMS

MECHATRONICS ENGINEERING TECHNOLOGY

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Mechatronics is the integration of mechanical, electronic and electrical engineering systems, including robotics and advanced automation systems. Technicians with a degree from the program are trained to design, build, test, install, program, troubleshoot and repair systems involving high-tech, computer-controlled machinery. While the main focus is on robotics and controls for automated manufacturing machinery, mechatronics is truly found in a multitude of places, including transportation, shipping/distribution centers, elevators, and medical equipment, just to name a few.

Learning Outcomes

Graduates who earn the Mechatronics Engineering Technology degree will possess a strong background in the following areas:

- Basic Electricity and Electronics
- Robotics
- Programmable Logic Controllers
- Instrumentation
- Fluid Power
- Mechanisms
- Applied Technical Math
- Physics
- Motors and Controls

Mechatronics Engineering Technology Degree - A40350

First Year		
Fall		**Credit Hours**
ACA 111	College Student Success	1
CIS 110	Introduction to Computers	3
DFT 151	CAD I	3
ELC 131	Circuit Analysis I	4
MAT 171	Precalculus Algebra	4
	Credit Hours	NaN
Spring		**Credit Hours**
ELN 131	Analog Electronics I	4
ELN 133	Digital Electronics	4
ENG 111	Writing and Inquiry	3
HYD 110	Hydraulics/Pneumatics I	3
ISC 112	Industrial Safety	2
	Credit Hours	16
Summer		**Credit Hours**
MEC 130	Mechanisms	3
Social Science elective*		3
	Credit Hours	6
Second Year		
Fall		**Credit Hours**
ATR 112	Introduction to Automation	3
ELC 213	Instrumentation	4
ELN 260	Prog Logic Controllers	4
ENG 114	Professional Research & Reporting	3

Humanties elective*		3
	Credit Hours	17
Spring		**Credit Hours**
ATR 214	Advanced PLCs	4
CTS 120	Hardware/Software Support	3
ELC 117	Motors and Controls	4
PHY 151	College Physics I	4
	Credit Hours	15
	Total Credit Hours	NaN

Mechatronics Engineering Technology Part-time Pathway

Term 1		**Credit Hours**
ACA 111	College Student Success	1
ELC 131	Circuit Analysis I	4
	Credit Hours	NaN
Term 2		**Credit Hours**
ELC 117	Motors and Controls	4
HYD 110	Hydraulics/Pneumatics I	3
ISC 112	Industrial Safety	2
	Credit Hours	9
Term 3		**Credit Hours**
MEC 130	Mechanisms	3
	Credit Hours	3
Term 4		**Credit Hours**
ELN 260	Prog Logic Controllers	4
Social Science or Humanities elective*		3
	Credit Hours	7
Term 5		**Credit Hours**
ELN 131	Analog Electronics I	4
ENG 111	Writing and Inquiry	3
	Credit Hours	7
Term 6		**Credit Hours**
CIS 110	Introduction to Computers	3
MAT 171	Precalculus Algebra	4
	Credit Hours	7
Term 7		**Credit Hours**
DFT 151	CAD I	3
ELC 213	Instrumentation	4
	Credit Hours	7
Term 8		**Credit Hours**

CTS 120	Hardware/Software Support	3
ELN 133	Digital Electronics	4
	Credit Hours	7
Term 9		**Credit Hours**
ENG 112 or ENG 114	Writing and Research in the Disciplines Professional Research & Reporting	3
Social Science or Humanities elective*		3
	Credit Hours	6
Term 10		**Credit Hours**
ATR 112	Introduction to Automation	3
	Credit Hours	3
Term 11		**Credit Hours**
ATR 214	Advanced PLCs	4
PHY 151	College Physics I	4
	Credit Hours	8
	Total Credit Hours	NaN