

Automated Machinery Systems (EP) Diploma

Semester Sequence

Offered at Eden Prairie Only

First Semester

ARET1126	Mechanical Power Transmission	3
ARET1161	Mechatronic Systems	3
ARET1175	Industrial Electricity and Electronics I	3
ARET1200	Introduction to Robotics	2
MATH1007	Math for the Trades	2
	or	
MATH1050	Math Pathways Plus for College and Careers	4
	or	
MATH1060	Math Pathways for College and Careers	3

Total Credits 13

Second Semester

ARET1130	Maintenance Operations	2
ARET1140	Computer Integrated Manufacturing	3
ARET1155	Automation Controls	3
ARET1180	Industrial Electricity and Electronics II	3
COMM1050	Communication in the Workplace	2
	or	
ENGL2125	Technical Writing	3

Total Credits 13

Summer Semester

ARET2181	Recommended Electives: Internship	1 - 4
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Total Credits: 4

Third Semester

ARET1165	Vision Systems for QA/SPC	3
ARET1185	Sensor Applications	2
ARET1190	Programmable Logic Controllers	3
ARET2105	Fluid Power Motion Control	2
PHYS1000	Fundamentals of Physics	2
	or	
PHYS2001	Introductory Physics	3
	Technical Studies Electives	4

Total Credits 16

Fourth Semester

ARET1170	Troubleshooting Mechatronic Systems	3
ARET2101	Advanced Automation Controls	3
ARET2111	Advanced Programmable Logic Controllers	3
ARET2150	Engineering Design and Fabrication	2
ARET2200	FANUC Robotics Operations	2
ARET2250	FANUC Vision Systems	1

Total Credits 14

Technical Studies Electives

Any Automation Robotics Engineering Technology (ARET) course that is not required for this award may be used as an elective.

	Recommended:	
ARET1900	Specialized Lab	1 - 4
ARET2181	Internship	1 - 4
ARET2500	Industrial Networks	2
ARET2540	Project Management for Manufacturing	2
ARET2560	Instrumentation and Process Control I	3
CMAE1510	Print Reading	2
CMAE1514	Safety Awareness	2
CMAE1528	360 Career Success Skills	1
	or	
ENGC1250	SOLIDWORKS I	4

Choose a Total of: 8 Credits

Graduation (60 Credits)

Semester listings reflect the recommended sequence. Due to circumstances beyond our control, the information herein is subject to change without notice.

4/28/2021 : BP / EP 4005