

Automated Machinery Systems (BP/EP) Diploma

Semester Sequence

Offered at Brooklyn Park and Eden Prairie

First Semester

ARET1126	Mechanical Power Transmission	3
ARET1161	Mechatronic Systems	3
ARET1175	Industrial Electricity and Electronics I	3
ARET1200	Introduction to Robotics	2
	Choose one course from MnTC Goal Area 1	3

Total Credits 14

Second Semester

ARET1130	Maintenance Operations	2
ARET1140	Computer Integrated Manufacturing	3
ARET1155	Automation Controls	3
ARET1180	Industrial Electricity and Electronics II	3
	Choose one course from MnTC Goal Area 2	3

Total Credits 14

Summer Semester

	Technical Studies Electives	4
	Recommended:	
ARET2181	Internship	1 - 4

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
	Technical Studies Electives	4

Total Credits 14

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 combination of Automation Robotics Engineering Technology (ARET), Center for Manufacturing and Applied Engineering (CMAE) and/or Engineering CAD Technology (ENGC) courses listed below that are not required for this award may be used as an elective totaling 8 credits.

	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 and Employability	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.

4/15/2024 : BP 4026 / EP 4005