

RAMT-General Technician

Contact Information

Lonnie Wurst, program coordinator
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701-671-2832
Barnard Hall 206

Delivery Methods

Face-to-Face: Wahpeton

The Robotics, Automation and Mechatronics Technology (RAMT) program is designed to provide students with the knowledge, skills, and abilities necessary to succeed in industries utilizing robotics and automated systems.

This program combines disciplines such as electronics, networking, computers, mechanics, and fluid power utilized in manufacturing and production facilities.

Industries that hire RAMT graduates with the skill sets learned in this program include; manufacturing, pharmaceutical, food production, energy, defense, and agriculture.

A RAMT technician graduating from this program may work performing installations, troubleshooting, repairing, and programming for automated systems.

A Robotics, Automation and Mechatronics Technology student will experience a combination of lecture and lab classes with knowledgeable instructors, using hands-on real world applications and scenarios which will prepare the student for a lifelong career.

NOTE: This program requires an HP ProBook 650 laptop or equivalent. Please refer to the NDSCS website for specifications. The cost will be approximately \$950 if purchased from NDSCS. For further information, contact Lonnie Wurst, Robotics, Automation and Mechatronics Technology program coordinator, at 701-671-2832.

Course Code	Course Title	Credits
ECAL 223	Electronic Devices/Lab	4
ECAL 224	Automated Industrial Controls Lab	5
ECAL 241	Basic Motor Controls Lab	3
ECAL 243	Programmable Logic Controllers Lab	3
MFGT 110	Industrial Shop Practices	2
RAMT 101	Applied DC Theory	4
RAMT 103	Applied AC Theory	4
RAMT 107	Mechanical Drives and Maintenance I	2
RAMT 109	Mechanical Drives and Maintenance II	2
RAMT 137	Print Reading, Drafting and Safety	2
RAMT 202	PLC's II	3
RAMT 203	Machine Safety and Panel Building	3
RAMT 208	Information Technology for Technicians	2
RAMT 221	Robotics II	3
RAMT 240	Principles of Project Management	2
RAMT 244	System Integration and Troubleshooting	2
RAMT 246	Quality Assurance Standards and Methods	3
RAMT 250	Drives and Servo Systems	2
RAMT 297	Cooperative Education	2

Related/General Education Courses

CIS 101	Computer Literacy	2
ENGL 110	College Composition I	3
English/Communication Elective (choose one)		3
ENGL 105	Technical Communications	
ENGL 120	College Composition II	
ENGL 125	Introduction to Professional Writing	
COMM 110	Fundamentals of Public Speaking	
FYE 101	Science of Success	1
Wellness Electives		2
MATH 130	Technical Mathematics	2
MATH 132	Technical Algebra I	2
MATH 136	Technical Trigonometry	2
PSYC 100	Human Relations in Organizations	2

Total Required Credits **72**

Admission Requirements*

The applicants must be high school graduates or equivalent. Students considered for acceptance must complete all admission requirements.

Required minimum placement scores:

<u>ACT</u>	<u>ACCUPLACER</u>	<u>ACCUPLACER</u>
Reading – 15	Reading Comp – 61	<u>NEXT GENERATION</u>
English – 15	WritePlacer – 3-4	Reading – 240
Math – 17	Arithmetic – 51	Writing – 237
	Elementary Algebra – 25	QAS – 232

Or transfer equivalencies will apply as appropriate

Applicants not meeting the above requirements are encouraged to visit with the academic counselor at 701-671-2257 or the Robotics, Automation and Mechatronics Technology program coordinator at 701-671-2832 for strategies to meet the admission requirements.

**Program Admission Requirements are subject to revision. Please check the department or program website under Program Admission Requirements for current information.*

Award

Upon successful completion of the required courses, students will be awarded an Associate in Applied Science degree in Robotics, Automation and Mechatronics Technology.