

# RAMT-General Technician

## Degree Type

Associate in Applied Science

## Contact Information

LeAnne Jaenisch, program coordinator  
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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 a Laptop. Please refer to the NDSCS website for specifications. For further information, contact LeAnne Jaenisch, program coordinator, at 701-671-2176.

## Admission Requirements\*

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

**Please Note:** Students are placed into English, math and reading courses based on ACT, ACCUPLACER or other nationally recognized tests. Please see [www.ndscs.edu/current-students/student-success/test-center](http://www.ndscs.edu/current-students/student-success/test-center) for the NDSCS Course Placement Policy and testing information. Students may be on an extended plan of study pending their course placement.

\*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.

## Required Courses

Course Code	Title	Credits
ECAL 241	Basic Motor Controls 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 223	Solid State Systems II	2
RAMT 224	Robotics Systems I	3
RAMT 225	Digital and Pneumatic Systems	2
RAMT 240	Principles of Project Management	2
RAMT 243	PLC's I	3
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
RAMT 222	Solid State Systems I	2

## Related/General Education Courses

Course Code	Title	Credits
CIS 101	Computer Literacy	2
ENGL 110	College Composition I	3
	English/Communication Elective (choose one)	3
FYE 101	Science of Success	1
	Wellness Elective(s) (2 credits)	2
MATH 130	Technical Math	2
MATH 132	Technical Algebra I	2
MATH 136	Technical Trigonometry	2
PSYC 100	Human Relations in Organizations	2
<b>Total Required Credits</b>		<b>72</b>