RAMT-Mechatronics Engineering Technology

Contact Information
Lonnie Wurst, program coordinator
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Delivery Methods
Face-to-Face: Wahpeton

The Mechatronics Engineering Technology (MET) program is designed to provide students with the knowledge, skills and abilities necessary to succeed in industries utilizing robotics and automated systems while preparing them for transfer into four-year engineering and/or engineering technology programs.

The program combines disciplines such as robotics, computer networking, automated controls, mechanics, and fluid power utilized in manufacturing and production facilities.

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

A MET program graduate may work performing installations, troubleshooting, repairing, and programming for automated systems, or may fulfill the roles of an entry-level engineering technician.

A Mechatronics Engineering 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 while preparing for follow-on education of four-year institution, if desired.

NOTE: This program requires an HP EliteBook 850 Laptop or equivalent. Please refer to the NDSCS website for specifications. The cost will be approximately $1065.00 if purchased through NDSCS. For further information, contact Lonnie Wurst, program coordinator, at 701-671-2832.

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 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 – Mechatronics Engineering Technology.

Course Code  Course Title                  Credits
ECAL 241 Basic Motor Controls Lab         3
MFGT 107 Introduction to CNC               2
MFGT 110 Industrial Shop Practices        2
RAMT 101 Applied DC Theory                4
RAMT 103 Applied AC Theory                4
RAMT 109 Mechanical Drives and Maintenance II 2
RAMT 120 3D Modeling and Design           3
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 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 Serve Systems         2
RAMT 297 Cooperative Education            2

Related/General Education Courses
ENGL 110 College Composition I            3
English/Communication Elective (choose one) 3
ENGL 120 College Composition II           3
ENGL 125 Introduction to Professional Writing 3
COMM 110 Fundamentals of Public Speaking  3
FYE 101 Science of Success                1
Wellness Electives                        2
MATH 103 College Algebra                   3
MATH 105 Trigonometry                      2
PHYS 211 College Physics                   3
PHYS 211L College Physics I Lab            1
Social and Behavioral Sciences, Humanities, History 4
and/or Computer Electives
Recommended:
- CIS 101 – Computer Literacy – 2 cr
- PSYC 100 – Human Relations in Organizations – 2 cr

Total Required Credits 72

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