# Engineering Technology: Mechatronics & Robotics, MS

Requirements for Students Matriculating in or before Academic Year 2020-2021. Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college/#70).

## Thesis Option

**Total Hours:** 30 Hours

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MERO 5013</td>
<td>Research Design &amp; Methodology</td>
<td>3</td>
</tr>
<tr>
<td>MERO 5023</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MERO 5033</td>
<td>Principles of Industrial and Process Safety</td>
<td>3</td>
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</tbody>
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**Hours Subtotal:** 9

### Core Courses

- MERO 5113: Mechatronic Systems I
- MERO 5123: Mechatronic Systems II
- MERO 5213: Introduction to Robot Dynamics and Kinematics

**Electives**

Select 6 hours from the following:

- MERO 5060: Emerging Topics in Engineering Technology
- MERO 5070: Directed Studies
- MERO 5133: Mechatronic System Hardware and Software Integration
- MERO 5313: Linear Control Systems for Mechatronics
- MERO 5323: Intelligent Control of Mechatronic Systems
- MERO 5413: Robotic Underwater Vehicles
- MERO 5423: Engineering Acoustics
- MERO 5433: Industrial Noise Control
- MERO 5513: Electrohydraulics
- MERO 5523: Electropneumatics
- MERO 5613: Smart Manufacturing for Mechatronics
- MERO 5633: Multiphysics Computational Modeling and Simulation
- MERO 5713: Advanced CAD for Electro-Mechanical Systems
- MERO 5723: Mechanism Design with CAD
- MERO 5733: Advanced Vibration for Electro-Mechanical Systems
- MAE 5433: Robotics, Kinematics, Dynamics and Control
- or ECEN 5433: Robotics Kinematics, Dynamics and Control
- MAE 5483: Advanced Mechatronics Design
- or ECEN 5483: Advanced Mechatronics Design
- ECEN 5233: Embedded Sensor Networks
- ECEN 5283: Computer Vision
- ECEN 5533: Modern Communication Theory

## Non-Thesis Option

**Total Hours:** 30 Hours

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**Hours Subtotal:** 9

### Core Courses

- MERO 5113: Mechatronic Systems I
- MERO 5123: Mechatronic Systems II
- MERO 5213: Introduction to Robot Dynamics and Kinematics

**Electives**

Select 12 hours from the following (minimum 6 hours of MERO courses and 3 hours from ETM/IEM courses): 12

- MERO 5060: Emerging Topics in Engineering Technology
- MERO 5070: Directed Studies
- MERO 5133: Mechatronic System Hardware and Software Integration
- MERO 5313: Linear Control Systems for Mechatronics
- MERO 5323: Intelligent Control of Mechatronic Systems
- MERO 5413: Robotic Underwater Vehicles
- MERO 5423: Engineering Acoustics
- MERO 5433: Industrial Noise Control
- MERO 5513: Electrohydraulics
- MERO 5523: Electropneumatics
- MERO 5613: Smart Manufacturing for Mechatronics
- MERO 5633: Multiphysics Computational Modeling and Simulation
Graduate College Master's Program Requirements

Learn more about Graduate College 2020-2021 Master’s Degree Program Requirements [link](http://catalog.okstate.edu/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2026.