

# Degree in Engineering Transfer - Mechanical

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## Program Details

Engineers apply the rules of mathematics and physics using the materials and forces of nature, to develop solutions and products for the benefit of society. Engineers learn about the application of mathematics and physics principles to real life products and solutions; the processes by which today's products and solutions were developed, and advancements in materials and applications that can lead to the improved or new products of tomorrow; the ethics and responsibilities behind the development of designs and products that will be used by society; and how to take ideas from theory to research lab to production.

The Engineering options at Massasoit are all focused on preparing students for transfer to four-year institutions for completion of their bachelor's degree. The Engineering Transfer program is MassTransfer-compliant.

The Engineering Transfer – Mechanical option prepares students to continue their studies for a baccalaureate degree in Mechanical Engineering.

Graduates earn an Associate in Science Degree.

## Program Outcomes

The Engineering Transfer Program will provide graduates with the ability to:

- Demonstrate a fundamental understanding and skill level in mathematics, science and engineering that will enable them to transfer to an advanced educational program to complete the Bachelor of Science in Engineering degree.
- With the help of course variety and instructor professional experience, understand the opportunities and activities within the various engineering fields, helping to facilitate career development decisions.
- To appraise engineering problems and utilize techniques and skills obtained in this program to produce thoughtful and practical solutions.
- Demonstrate technical decision-making processes and communication skills through thorough application of the engineering analysis technique for assignments along with formatted and complete reports for laboratory work.
- Engage in lifelong learning, which will allow students successful entry into a Baccalaureate program, laying a path for further academic work or employment in the engineering field.

## Academic Map

### Degree in Engineering Transfer - Mechanical

A minimum of 20 classes and 70 credits is required. At least 18 credits of your program must be taken at Massasoit. Note: Each course completed and passed can only fulfill one program requirement. The same course cannot be used to satisfy multiple program requirements.

#### Semester 1

4 Credits in ENGT 140  
Introduction to Engineering  
4 Credits in CHEM 151  
General Chemistry I  
3 Credits in ENGL 101  
English Composition I  
4 Credits in MATH 221  
Calculus I  
3 Credits in Humanities elective

#### Semester 2

3 Credits in ENGL 102  
English Composition II  
4 Credits in MATH 222  
Calculus II  
4 Credits in PHYS 161  
General Physics I  
3 Credits in either CHEM 152 or ENGT 277  
(General Chemistry II or Intro to SOLIDWORKS)  
3 Credits in Social Science elective

### Semester 3

4 Credits in ENGT 272  
Engineering Materials  
4 Credits in ENGT 273  
Statics  
4 Credits in MATH 223  
Calculus III  
4 Credits in PHYS 162  
General Physics II  
3 Credits in Humanities elective

### Semester 4

3 Credits in ENGT 274  
Dynamics  
4 Credits in ENGT 275  
Strength of Materials  
3 Credits in ENGT 276  
Engineering Thermodynamics  
4 Credits in MATH 230  
Differential Equations  
3 Credits in Social Science elective

This academic map is a suggested semester-by-semester guide to keep you on a clear path to program completion. Please note that some classes are offered only in certain semesters, have prerequisites, or minimum passing grades. Winter and/or Summer Session classes may be available for some classes. Your [academic advisor](#) will provide you with clear direction needed to stay on course and discuss scheduling options with you. Taking courses not reflected on this map may result in courses not counting toward the completion of your requirements.

### Advisory Committee

This committee is comprised of engineering professionals, educators, and industry partners who work collaboratively to ensure the program remains academically rigorous, transfer-ready, and aligned with the evolving demands of the engineering field. By offering guidance on curriculum development, technological advancements, and transfer pathways, the committee plays a vital role in preparing students for successful continuation at four-year institutions and future careers in a wide range of engineering disciplines. Together, we are committed to fostering innovation, academic excellence, and student achievement in the engineering sciences.

- **Michele Stein, P.E.**  
Principal and Orlando Office Director  
Thornton Tomasetti
- **Jean Guerrier**  
Civil Engineering  
Independent contractor
- **Adam Fiore**  
Mechanical Engineer I  
Hill Unmanned Systems