

Degree in Engineering Transfer - Chemical

Program Details

Associate in Science Degree 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 – Chemical option prepares students to continue their studies for a baccalaureate degree in Chemical 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

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A minimum of 20 classes and 71 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 CHEM 151
General Chemistry I
4 Credits in ENGT 140
Introduction to Engineering
4 Credits in MATH 221
Calculus I
3 Credits in ENGL 101
English Composition I
3 Credits in Humanities elective

Semester 2

4 Credits in CHEM 152
General Chemistry II
4 Credits in MATH 222
Calculus II
4 Credits in PHYS 161
General Physics I
3 Credits in ENGL 102
English Composition II

3 Credits in Social Science elective

Semester 3

5 Credits in CHEM 201
Organic Chemistry I
4 Credits in ENGT 272
Engineering Materials
4 Credits in MATH 223
Calculus III
4 Credits in Lab Science elective

Semester 4

5 Credits in CHEM 202
Organic Chemistry II
3 Credits in ENGT 276
Engineering Thermodynamics
4 Credits in MATH 230
Differential Equations
3 Credits in Humanities elective
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