



# SUNY NIAGARA

## Engineering Science, A.S.

### Overview

If you enjoy problem solving and have an interest in design, technology and advanced materials, Engineering Science is for you. This program provides a solid foundation in Aerospace, Civil, Mechanical or Environmental engineering. You can also meet the SUNY seamless transfer requirements for Industrial, Computer, Chemical and Biomedical Engineering. At the core of this program are mathematics and science-based classes that cover both theory and practical applications.

*Designed for transfer into a 4-year institution.*

### Tracks

1. Aerospace, Mechanical, Undecided
2. Civil Engineering
3. Environmental Engineering

### Careers

Careers related to your program of study:

- Engineer (Design, Manufacturing, Process, Research, Structural, Sustainability, Test)
- Construction Management
- Engineering Mgmt., Project Mgmt.
- Logistics, Operations, Supply Chain Mgmt.
- Patent Attorney, Medical Doctor
- Technical Sales, Marketing
- Entrepreneur, Engineering Consultant

*All careers require more education.*

### Contact

#### Program Coordinator

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#### Division

Business & STEM, 716-614-6410

*Visit full catalog for specific course offerings for each semester:*

[www.niagaracc.suny.edu/programs/engs](http://www.niagaracc.suny.edu/programs/engs)

*The information provided is subject to change throughout the academic year.*

### Typical Program (Aerospace, Mechanical)

First Semester	Credits
MAT 120 - Calculus and Analytic Geometry I	4
CHE 120 - General Chemistry I	4
CHE 111L - General Chemistry I Lab	1
ENG 101 - Writing I	3
ENS 120 - Engineering Data & Applications	3
____ - General Education Elective (ARTS and HUMN)	3
<b>Total Credit Hours:</b>	<b>18 Cr.</b>

#### Second Semester

ENG 102 - Writing II & Introduction to Literature OR	
ENG 103 - Writing for STEM	3
MAT 121 - Calculus and Analytic Geometry II	4
MET 110 - Engineering Drawing I	2
PHY 171 - Calculus-Based Physics and Mechanics	4
PHY 171L - Calculus-Based Physics and Mechanics Lab	0
____ - General Education Elective (DVRS and SOCS OR DVRS and USCV)	3
<b>Total Credit Hours:</b>	<b>16 Cr.</b>

#### Third Semester

ENS 217 - Statics	3
ENS 283 - Thermodynamics	3
ENS 110 - Computer Programming for Engineers	4
MAT 222 - Calculus and Analytic Geometry III	4
PHY 172 - Calculus-Based Physics II	4
PHY 172L - Calculus Based Physics II Lab	0
<b>Total Credit Hours:</b>	<b>18 Cr.</b>

#### Fourth Semester

MAT 223 - Differential Equations	4
ENS 218 - Dynamics	3
ENS 219 - Engineering Mechanics of Materials	3
ENS 285 - Engineering Circuit Analysis	3
MAT 255 - Linear Algebra OR	
MAT 164 - Introduction to Statistics	3
<b>Total Credit Hours:</b>	<b>16 Cr.</b>