***Engineering Technology: Drafting*** *Associate in Science – Non-Transfer*

Engineers help find ways to feed and house the world! And have shrunk supercomputers to fit into your pocket! Everything around you was created with the designs and innovation of Engineers. Engineers combine an understanding of people’s goals, innovative science, practical methods and perseverance to create the modern world.

***Please see a Pathways Counselor:*** Create an education plan customized to meet your needs. [Contact a Counselor](https://www.msjc.edu/hub/)

Transfer Majors/Award Focus

* Engineering Drafting Technology, A.S.
* Engineering Technologist Support Certificate
* Engineering: Drafting Technology Certificate

GE Pattern/Units

* GE Pattern: Option A
* Total Units: 60

**Program maps** indicate the major coursework and recommended general education courses to fulfill your degree in 2 years (approximately 15 units/semester or 30 units/year). If you are a part-time student, start Semester 1 courses and follow the course sequence. Some of the courses listed may be substituted by another course. Please view these options in the official course [catalog](https://catalog.msjc.edu/instructional-programs/).

***Semester 1 15 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | ENGR-154 | Computer Aided Drafting I | 3 |
| ⬜ | PHOT-125 | Digital Photography Production I | 3 |
| ⬜ | ENGR-180 | Intro to Engineering | 2 |
| ⬜ | ENG-101 | College Composition | 4 |
| ⬜ | CSCR-116 | Integrative Career/Life Planning | 3 |

***Semester 2 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | ENGR-155 | Computer Aided Drafting II | 3 |
| ⬜ | ENGR-121 | Introduction to Engineering Design | 3 |
| ⬜ | COMM-103 | Interpersonal Communication | 3 |
| ⬜ | MATH-105 | College Algebra | 4 |
| ⬜ | ENGR-121 or  ENGR-164 | Engineering Technologists or  Plane Surveying I | 3 |

Career Options

Surveying Technicians (C, A)

Civil Engineers (B, M)

Mechanical Engineering Technologists (A, B)

Mapping Technicians (SM, C, B)

Find more careers: [msjc.emsicc.com](http://msjc.emsicc.com)

Required Education: SM: some college; C: Certificate; A: Associate, B: Bachelor’s, M: Master’s; D: Doctorate

Financial Aid

Financial aid is determined by the number of credit hours you take in a semester. Maximize your financial aid by taking 12-15 units per semester.

***Semester 3 14 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | ENGR 122 or  ENGR 565 | Electronics for Engineering Technologists or  Plane Surveying II | 3 |
| ⬜ | PS-101 | Introduction to Political Science | 3 |
| ⬜ | ART-108 or  ART-120 | Beginning Drawing or  2D Design | 3 |
| ⬜ | ENGR-549 | Cooperative Work Experience | 2 |
| ⬜ | ENGR-566 or  ENGR-756 | Legal Aspects of Surveying or  SolidWorks I | 3 |

***Semester 4 15 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | GEOG-101 | Physical Geography | 3 |
| ⬜ | ANTH 102 | Cultural Anthropology | 3 |
| ⬜ | PS 103 | Ethnic Politics in America | 3 |
| ⬜ | GEOG-115 or  ENGR-757 | Intro to GIS or  Microstation | 3 |
| ⬜ | ENGR 567 or  ENGR 523 | Global Positioning Systems for Surveying or Computer Integrated Manufacturing | 3 |

Notes***:***

Surveying, Land Use, GIS electives: ENGR-164, ENGR 565, ENGR 566, ENGR 567, and GEOG 515. Drafting Specialist electives: ENGR-121, ENGR 756, ENGR 757. Electronics/Electrical Design electives: ENGR-121, ENGR-122, ENGR 523

Work Experience

Sign up for a special project or internship opportunity. Gain [work experience](https://msjc.edu/careereducation/cwee/index.html) and earn credits.