

## Academic Programs

### Engineering - Associate in Engineering Science ( 320)

---

Engineering programs are highly structured to meet the Accreditation Board for Engineering and Technology (A.B.E.T.) standards required for registration as a professional engineer. Community College students are strongly encouraged to complete an Associate in Engineering Science (A.E.S.) degree. You are unlikely to earn the bachelor's degree within 2 more years after transfer if you enter with less than 64 semester credits.

Students should decide on an Engineering specialty and preferred transfer institution by the beginning of their sophomore year since course requirements vary by specialty and by institution. Students should select courses in consultation with an academic advisor.

A grade of "C" or better may be required for physics, chemistry, mathematics, and engineering science courses to transfer. A similar policy may exist for general education courses. The student is advised to check directly with their preferred transfer school.

**IMPORTANT NOTE TO STUDENTS:** The Engineering major panel recommends students complete the general education requirements of the AES instead of the traditional GECC requirement of the AA degree. If students pursuing an engineering major choose to complete the full GECC, it is likely that students will have too many hours in transfer and/or will miss important prerequisites/major courses that will prolong the time it takes to obtain the bachelor's degree.

**Students who have already chosen the university to which they plan to transfer should consult that institution's catalog or department advisor and an SVCC academic advisor in planning their program.**

Engineering - IAI Recommended Baccalaureate Curriculum

#### Suggested Specialty Programs Chart

[2024-25/programs-of-study/university-transfer/AES-chart-2024-2025.pdf](https://www.svcc.edu/2024-25/programs-of-study/university-transfer/AES-chart-2024-2025.pdf)

#### Program Contacts at Sauk Valley Community College

---

- Academic Advising, 815-835-6354
- Kurt Stuart, Associate Professor, Electrical and Industrial Technology, 815-835-6415

### Minimum Total Credit Hours - 64 Hours

---

#### Suggested Program

---

##### First Semester - 16 Hours

---

- \*\*Humanities/Fine Arts 3 Semester hour(s)
- CHE105 - General Chemistry I ( 5 Semester Hours)
- ENG101 - Composition I ( 3 Semester Hours)
- FYE101 - First Year Experience ( 1 Semester Hours)
- MAT203 - Calculus & Analytic Geometry I ( 4 Semester Hours)

##### Second Semester - 18 Hours

---

- \*\*\*Approved Computer Programming Language 3 Semester hour(s)
  - COM131 - Intro to Oral Communication ( 3 Semester Hours)
- OR**
- ENG103 - Composition II ( 3 Semester Hours)
  - MAT204 - Calc & Analytic Geometry II ( 4 Semester Hours)
  - PHY211 - Engineering Physics I ( 5 Semester Hours)

### **Third Semester - 15 Hours**

---

- \*Engineering Specialty Courses 3 Semester hour(s)
- ECO212 - Principles of Microeconomics ( 3 Semester Hours)
- MAT205 - Calc & Analytic Geometry III ( 4 Semester Hours)
- PHY212 - Engineering Physics II ( 5 Semester Hours)

### **Fourth Semester - 15 Hours**

---

- \*Engineering Specialty Courses 4 Semester hour(s)
- \*\*Humanities/Fine Arts or Social/Behavioral Science 3 Semester hour(s)
- MAT211 - Differential Equations ( 3 Semester Hours)
- PHY213 - Engineering Physics III ( 5 Semester Hours)

**OR**

ENGINEERING SPECIALITY COURSES (5 SEMESTER HOURS)

### **Footnotes**

---

- \*Students are required to complete 15 hours of engineering specialty courses. See the Suggested Specialty Programs Chart (above) for specific course listings:
- \*\*If only three hours are completed in Humanities/Fine Arts, then six hours are required in Social/Behavioral Sciences and vice versa. Certain specialty areas in engineering require only three hours (1 course) from both Humanities/Fine Arts and Social/Behavioral Sciences. In turn, more credit hours are required in engineering specialty courses. Refer to AES degree chart in the SVCC catalog for specific course recommendations by specialty area. Also, see a counselor or academic advisor to complete required paperwork (substitution form) to document this combination of courses. A non-Western or minority course is recommended. If two courses are selected in a field, a two-semester sequence in the same discipline is recommended.
- \*\*\*MAT 150 or CIS 207 or CIS Programming Course-Structured Languages.