# Associate in Science Degree with a Concentration in Computer Science/ Technical Track ( 840)

The concentration is Computer Science prepares students to transfer to four-year universities to pursue a bachelor's degree in Computer Science.

The associate in science (A.S.) degree is designed to complete the lower-division (freshman and sophomore) portion of a bachelor of science degree in STEM-related majors. As a result, the A.S. degree does not include the entire General Education Core Curriculum (GECC). **Therefore, students will need to complete MORE general education courses after transfer by completing the GECC curriculum while enrolled at the participating Illinois transfer institution OR fulfilling the general education requirements of their selected non-participating transfer institution.**

Computer Science - IAI Recommended Baccalaureate Curriculum

### Transfer Considerations

**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.**

1. Bachelor's degree programs in Computer Science encompass two distinct emphases: an information systems (or business) emphasis and a technical emphasis. While either emphasis will prepare a student for a computing career, there are important differences in the context of the work to be performed, the types of problems to be solved, and the types of systems to be designed and managed. For both emphases, starting positions include such titles as programmer, programmer-analyst, and network analyst. The associate of arts degree corresponds to the information systems emphasis. The associate of science degree corresponds to the technical track. Be sure to see an academic advisor or computer science faculty member to select the appropriate emphasis for you.
2. The core of the computer science degree consists of the four-course sequence CIS 150 – CIS 207 – CIS 208 – MAT 230. Of these, CIS 207 and 208 together cover the foundations of algorithms and data structures, which is prerequisite knowledge required by almost every transfer institution.

### Competitive Admissions

**Since admission is competitive, completing the recommended courses does not by itself guarantee admission.**

### Program Contacts at Sauk Valley Community College

- Academic Advising, 815-835-6354
- Kevin Megill, Associate Professor of Computer Information Systems, 815-835-6251

# Minimum Total Credit Hours - 64-65 Hours

# Suggested Program

### First Semester - 17 Hours

- Fine Arts 3 Semester hour(s)
- Life Science 3 Semester hour(s)
- ENG101 - Composition I ( 3 Semester Hours)
- FYE101 - First Year Experience ( 1 Semester Hours)
- MAT203 - Calculus & Analytic Geometry I ( 4 Semester Hours)
- PSY103 - Introduction to Psychology ( 3 Semester Hours)

## Second Semester - 15 Hours

- *

  CIS207 - C++ Programming ( 3 Semester Hours)
- ENG103 - Composition II ( 3 Semester Hours)
- MAT204 - Calc & Analytic Geometry II ( 4 Semester Hours)
- PHY211 - Engineering Physics I ( 5 Semester Hours)

## Third Semester - 16-17 Hours

- Personal Development 3 Semester hour(s)
- CIS208 - C++ Programming II ( 3 Semester Hours)
- ECO211 - Principles of Macroeconomics ( 3 Semester Hours)
- MAT230 - Discrete Mathematics ( 3 Semester Hours)
- **

  PHY212 - Engineering Physics II ( 5 Semester Hours)

  **OR**

  ADDITIONAL PHYSICAL SCIENCE (4-5 SEMESTER HOURS)

## Fourth Semester - 16 Hours

- Humanities 3 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s) or major field requirements
- COM131 - Intro to Oral Communication ( 3 Semester Hours)
- ECO212 - Principles of Microeconomics ( 3 Semester Hours)

  **OR**

  MAJOR FIELD REQUIREMENTS
- **

  MAT205 - Calc & Analytic Geometry III ( 4 Semester Hours)

## Footnotes

- *CIS 150 or previous programming experience required as a prerequisite.
- **Students should complete the entire course sequence in calculus and physics at the same school before transferring.