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. Be sure to see an academic advisor or computer science faculty member to select the appropriate emphasis for you.

#### **Technical Track**

The Technical track focuses on algorithms, theoretical foundations of computer science, and development of software. A strong foundation in mathematics and science is needed for this emphasis. Graduates of this emphasis will be prepared to work for a variety of companies including those that have a software, engineering, scientific, or mathematical focus.

Baccalaureate schools may have multiple computing degree programs, often located in different departments, which are based on the Computer Science recommendations. Consult the baccalaureate school you are considering as a transfer school to determine the department location and specific requirements for the specific major program in which you are interested.

Note: PHY 213 - Engineering Physics is recommended.

Effective Fall of 2016, 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, A.S. degree does not include the entire General Education Core Curriculum. 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.

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. Transfer guides for some universities are available at <a href="mailto:svcc.edu/transfer">svcc.edu/transfer</a>.

Computer Science - IAI Recommended Baccalaureate Curriculum

### **Program Contacts at Sauk Valley Community College**

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

# **Total Hours Required - 64-65 Hours**

# **Suggested Program**

#### First Semester - 17 Hours

- Fine Arts 3 Semester hour(s)
- Life Science 3 Semester hour(s)
- ENG 101 Composition I (3 Semester Hours)
- FYE 101 First Year Experience (1 Semester Hours)
- MAT 203 Calculus & Analytic Geometry I (4 Semester Hours)
- PSY 103 Introduction to Psychology (3 Semester Hours)

#### **Second Semester - 15 Hours**

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CIS 207 - C++ Programming (3 Semester Hours)

- ENG 103 Composition II (3 Semester Hours)
- MAT 204 Calc & Analytic Geometry II (4 Semester Hours)

• PHY 211 - Engineering Physics I (5 Semester Hours)

### **Third Semester - 16-17 Hours**

- Personal Development 3 Semester hour(s)
- CIS 208 C++ Programming II (3 Semester Hours)
- ECO 211 Principles of Macroeconomics (3 Semester Hours)
- MAT 230 Discrete Mathematics (3 Semester Hours)
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PHY 212 - 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
- COM 131 Intro to Oral Communication (3 Semester Hours)
- ECO 212 Principles of Microeconomics (3 Semester Hours)

OR

MAJOR FIELD REQUIREMENTS

\*

MAT 205 - 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.