

Academic Programs

Associate in Science Degree with a Concentration in Physics (417)

The concentration in Physics prepares students to transfer to four-year universities to pursue a bachelor's degree in Physics, Engineering, and/or 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.**

Physics - IAI Recommended Course Sequence

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 programs in physics are based on an in-depth foundation of sequential coursework in science and math, while upper-division coursework provides the preparation necessary for graduate studies and/or work in industry. Multiple tracks are often available. For example, some institutions offer a specialty in applied physics or certification for high school teaching.
2. PHY 211 and PHY 212 (Calculus-based Physics Mechanics and Electricity & Magnetism), MAT 203, MAT 204, and MAT 205 (Calculus & Analytic Geometry I, II, & III), and CHE 205 and CHE 206 (General Chemistry I & II) are recommended electives based on top transfer school requirements (for a Physics B.S.). Some schools also require completion of a computer-programming language, MAT 231 and/or MAT 211 before students may begin junior-year required courses.

Competitive Admissions

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

Special Considerations

Mathematical ability and computer skills are essential to the career success of physicists. Advanced degrees, often the Ph.D., are required for career advancement.

Program Contacts at Sauk Valley Community College

- Academic Advising, 815-835-6354
- Dr. James Chisholm, Professor of Physics, 815-835-6215

Minimum Total Credit Hours - 65 Hours

Suggested Program

First Semester - 17 Hours

- Life Science 3 Semester hour(s)
- Personal Development 1 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

- Personal Development 1 Semester hour(s)
- CHE106 - General Chemistry II (5 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 - 15 Hours

- Fine Arts 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Personal Development 1 Semester hour(s)
- COM131 - Intro to Oral Communication (3 Semester Hours)
- PHY212 - Engineering Physics II (5 Semester Hours)

Fourth Semester - 15 Hours

- Humanities 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- MAT205 - Calc & Analytic Geometry III (4 Semester Hours)
- PHY213 - Engineering Physics III (5 Semester Hours)