

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. To transfer as a junior into a bachelor's physics program students must complete a minimum of 60 semester credits (65 for the Associate degree). Students should be aware that because of differences among schools in the number of credits for which various courses are offered and the possible need for prerequisite courses, it may be difficult to complete an Associate in Science degree without taking more credits than will be accepted in a transfer. Students planning on a physics major should select courses in consultation with an advisor.

Note: Some schools also require completion of a computer-programming language, MAT 231 and/or MAT 211 before students may begin junior-year required courses.

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.**

### 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.

**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.**

Physics - IAI Recommended Baccalaureate Curriculum

### Program Contacts at Sauk Valley Community College

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

## Total Hours Required - 65 Hours

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### Suggested Program

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#### First Semester - 17 Hours

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- Life Science 3 Semester hour(s)
- Personal Development 1 Semester hour(s)
- CHE 105 - General Chemistry I (5 Semester Hours)
- ENG 101 - Composition I (3 Semester Hours)
- FYE 101 - First Year Experience (1 Semester Hours)
- MAT 203 - Calculus & Analytic Geometry I (4 Semester Hours)

#### Second Semester - 18 Hours

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- Personal Development 1 Semester hour(s)
- CHE 106 - General Chemistry II (5 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 - 15 Hours**

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- Fine Arts 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Personal Development 1 Semester hour(s)
- COM 131 - Intro to Oral Communication (3 Semester Hours)
- PHY 212 - Engineering Physics II (5 Semester Hours)

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

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- Humanities 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- MAT 205 - Calc & Analytic Geometry III (4 Semester Hours)
- PHY 213 - Engineering Physics III (5 Semester Hours)