Sample Education Plan  
Associate in Science (AS)  
Area of Focus: Physics

Please note that the AS degree is not awarded in a specific major or focus area.

This is a SAMPLE plan to help guide you toward courses relevant to your interests while you are deciding on a transfer institution. Suggested courses are based on requirements of several four-year institutions and the Illinois Articulation Initiative (IAI) Physics Panel. Please note that requirements vary among four-year colleges and universities. It is important to check early with your transfer school and academic advisor to ensure you are taking appropriate courses and meeting all requirements. You will find transfer guides for specific universities on MCC’s website: [www.mchenry.edu/transfer](http://www.mchenry.edu/transfer).

**AS Degree Requirements: Area of Focus—Physics**

Please refer to MCC’s AS degree planning sheet in the current academic catalog for specific degree requirements and course options.

### Suggested Courses

<table>
<thead>
<tr>
<th>GENERAL EDUCATION CORE CURRICULUM</th>
<th>CREDITS</th>
<th>OTHER COURSE REQUIREMENTS</th>
<th>CREDITS</th>
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<tbody>
<tr>
<td>Communications</td>
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<td>ENG 151 Composition I</td>
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<td>ENG 152 Composition II</td>
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<td>SPE 151 Introduction to Speech</td>
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<td>Humanities and Fine Arts</td>
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<td>IAI Humanities</td>
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<td>IAI Social &amp; Behavioral Science</td>
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<td>Physical and Life Sciences</td>
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<td>PHY 291 Principles of Physics I</td>
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<td>PHY 292 Principles of Physics II</td>
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<td>IAI Life Science</td>
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<td>MAT 165 College Algebra &amp; Trigonometry</td>
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<td>CHM 165 General Chemistry I</td>
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<tr>
<td>MAT 175 Calculus for Business/Social Science or</td>
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<td>CHM 166 General Chemistry II</td>
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<tr>
<td>Calculus w/Analytic Geometry I</td>
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<td>MAT 245 Calculus w/Analytic Geo. II</td>
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<td>MAT 255 Calculus w/Analytic Geo. III</td>
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<td>MAT 260 Differential Equations</td>
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<td>PHY 293 Principles of Physics III</td>
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<td>Foreign Language</td>
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**Diversity and Multicultural Studies**

One 3-credit hour course is required. Courses that fulfill this requirement may be used to fulfill credits in Humanities/Fine Arts, Social/Behavioral Sciences, or Electives. See current catalog for complete list of Diversity & Multicultural Studies course options and how they apply toward degree requirements.

**Electives** (approximately 15 credits, will depend on credit value of your course selections)

Recommended Courses (select with your advisor):

- CHM 165 General Chemistry I
- CHM 166 General Chemistry II
- MAT 245 Calculus w/Analytic Geo. II
- MAT 255 Calculus w/Analytic Geo. III
- MAT 260 Differential Equations
- PHY 293 Principles of Physics III
- Foreign Language

**Total Credits Required for AA Degree**

Many 4-year schools will accept a maximum of 60–64 transfer credits.

### NOTE:

- Mathematics and science course selection will depend on your transfer school. Requirements vary among four-year schools.
- An entire sequence should be taken at the same school (e.g. MAT 175, MAT 245, and MAT 255). Content may vary between institutions; completing sequence at a single institution is the best way to assure that neither credit nor content is lost in transfer.
- Your transfer school may require at least 1 year of foreign language. High school foreign language may or may not count. It is always recommended that the foreign language requirement be completed prior to transfer.
- The AS degree does not include the entire IAI General Education Core Curriculum (GECC) package. Meet with an MCC academic advisor to learn more about the IAI GECC.

For more information:

[advising@mchenry.edu](mailto:advising@mchenry.edu) or (815) 479-7565

[www.mchenry.edu/advising](http://www.mchenry.edu/advising)
Transfer Notes
Bachelor's degree physics programs are built 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. The study of physics is an exploration of our physical universe—learning physical laws which explain the workings of our universe. A Bachelor of Science (BS) degree in physics is the usual prerequisite to enrolling in a graduate school in physics. It can also lead to graduate work in engineering, business, or medical school. In addition, the BS degree can lead to employment in applied physics fields and licensure in education.

Admission and specific course requirements for baccalaureate physics programs vary among four-year institutions. Competency through the second, third, or fourth semester of a single foreign language may be an admission or a graduation requirement. Ask about the language requirement of the schools you are considering, and complete the required foreign language courses before transfer. In some cases, two years of foreign language study in high school will substitute for two semesters in college.

A physics major may pursue a program leading to state licensure as a high school teacher. Teachers in public schools are required to be licensed. Licensure requirements vary by state. Almost all states require that applicants to teacher education programs be tested for competency in basic skills and undergo a criminal background check.

Transfer Schools
Many colleges and universities have the physics major. Following is a sample of Illinois public and private four-year institutions that offer physics programs:

- Augustana College
- Aurora University
- Benedictine University
- Bradley University
- Chicago State University
- Concordia University
- DePaul University
- Dominican University
- Eastern Illinois University
- Elmhurst College
- Governors State University
- Illinois Institute of Technology
- Illinois State University
- Illinois Wesleyan College
- Judson University
- Knox College
- Lake Forest College
- Lewis University
- Loyola University
- Millikin University
- Monmouth College
- North Central College
- North Park University
- Northeastern Illinois University
- Northern Illinois University
- Northwestern University
- Olivet Nazarene University
- Rockford University
- Roosevelt University
- Southern Illinois University at Carbondale
- Southern Illinois University at Edwardsville
- Trinity International University
- University of Illinois at Chicago
- University of Illinois Springfield
- University of Illinois at Urbana-Champaign
- Western Illinois University
- Wheaton College

Transfer Resources
www.itransfer.org—Transfer is a portal for transfer assistance in the state of Illinois. Find information about the Illinois Articulation Initiative and MyCreditsTransfer (Transferology—a nationwide transfer tool).

www.mchenry.edu/transfer—Find transfer guides, course equivalencies, partnership agreements, and other transfer resources.

For more information:
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