



Discover

Schoolcraft College

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Engineering Transfer Program

Engineers apply the principles of physical science and mathematics to research and develop solutions to technical problems. This might involve designing, testing, producing and maintaining machines; supervising the construction of buildings, highways and transit systems; extracting and processing raw materials and developing new materials to improve product performance.

There are more than 25 major engineering specialties recognized by professional societies. Each has a base of knowledge and training that can be applied in many fields.

Most engineering degrees are granted in electrical, electronics, mechanical or civil engineering. In 2002, there were 1.5 million engineering jobs in America, with almost 4 out of 10 in manufacturing industries. State, federal and local governments regularly employ engineers.

FREQUENTLY ASKED QUESTIONS

What Preparation Is Important To ENGINEERS?

Engineering students must have a solid background in mathematics and science, English, social studies, humanities and computer and information technology. Most entry-level jobs require a bachelor's degree, but graduate training is essential for engineering faculty positions and many research and development programs. Many engineers couple their degree with a master's in business administration.

What Characteristics Do I Need To Work In This Field?

Engineers are creative, inquisitive, analytical and detail oriented. They should be able to work as part of a team and to communicate well, both orally and in writing.

What Is My Employment Outlook?

Overall, job opportunities in engineering are expected to be good, but will vary by specialty. Projections range from slower than the average growth for electrical engineers, as moderate growth for civil engineers, to rapid growth for industrial engineers through the year 2020.

Related Websites

- American Society for Engineering Education: www.asee.org
- Institute of Electrical and Electronics Engineers: www.ieee.org
- American Society of Civil engineers: www.asce.org
- Institute of Industrial Engineers: www.iienet.org

For More Information

Visit www.schoolcraft.edu where you can view course and program information, schedule a campus tour, apply for admission, and register for courses.

In addition, you can request information by contacting the Admissions and Enrollment Center at 734-462-4426 or admissions@schoolcraft.edu.

employment

JOB TITLES & MEDIAN SALARIES OR HOURLY RATES

Electrical Engineer
\$64,804 (Michigan)

Civil Engineer
\$55,469 (Michigan)

Industrial Engineer
\$61,585 (Michigan)

Program Requirements 2012-2013 CATALOG

ASSOCIATE IN ENGINEERING

Schoolcraft program code # AE.00039

The Associate in Engineering (AE) transfer degree is for students who plan to transfer to a four-year college or university program. The AE degree provides the framework for four-year college degrees in, but not limited to, the following majors: Chemical, Civil, Computer Systems, Electrical, Environmental, Industrial, Manufacturing, Materials Science, Mechanical, and Sustainability.

Schoolcraft students may complete the AE by following the requirements specified by the transfer institution and Schoolcraft College. Students are advised to discuss these requirements with their advisor, counselor, or the transfer institution.

1. **English 101 and 102 required**—6 credit hours.
2. **Humanities***—Minimum 6 credit hours in more than one discipline.
Art, Communication Arts, English Literature, Foreign Language, History, Humanities, Music, Philosophy, or Theatre.
3. **Mathematics/Sciences**—34 credit hours.
Chemistry 111 required.
Physics 211 and 212 required.
Mathematics 150, 151, 240 and 252 required.
4. **Social Sciences***—Minimum 7 credit hours in more than one discipline.
Anthropology, Geography 133 or 241, History, Political Science, Psychology, or Sociology.
Economics 201 required.
5. **General Electives**—Minimum 7 credit hours.
Refer to the transfer institution's requirements.
Electives must be chosen from 100- or 200- level courses.
6. All courses that apply to this degree must be at the 100- or 200-level.
7. Complete all Schoolcraft College core ability and general education requirements.

* Please note: Students may not use the same History course to satisfy both the Humanities and Social Sciences distribution requirement.

Virtually any program at Schoolcraft College can be a transfer program if you plan to continue at a four-year institution to earn a bachelor's degree in your major. Visit www.schoolcraft.edu/transfer for information about transfer options. To ensure that the Schoolcraft courses you select are the specific ones required by the four-year college of your choice, be sure to consult regularly with your counselor/advisor.



**Schoolcraft
College**

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It is the policy of Schoolcraft College that no person shall, on the basis of race, color, national origin, gender, age, marital status, creed or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination during any program or activity or in employment.

PROGRAM INFORMATION UPDATED 4-12