

ENGINEERING

PROGRAMS

- **Associate of Science (A.S.)**

DESCRIPTION

Engineering is the science and art of applying scientific and mathematical principles, experience, judgment, and common sense to design things that benefit society. Engineers are problem-solvers who make things work faster, cheaper, and more efficiently. Technologies developed by engineers improve the ways that we live, communicate, work, travel, stay healthy, and entertain ourselves. From computer chips to cellphones and buildings to automobiles, engineering makes every aspect of our modern life possible.

Hartnell College offers a two-year lower division engineering program that prepares students for transfer in all engineering disciplines to colleges and universities in California and across the United States. The Associate in Science in Engineering offers course work in all fields of engineering from civil through mechanical and electrical and computer engineering. Students who are seeking to transfer to a four-year university and complete their Bachelor of Science in Engineering can find the courses needed to transfer in the Engineering program, as can students who are seeking employment in related fields as engineering technologists, surveyors, or construction managers. Positions for which four-year graduates in engineering are qualified can be found in the fields of engineering, engineering technology, construction management, business, programming, teaching, and research.

The first two years of the engineering curriculum at most colleges and universities have a shared core of mathematics and physics plus a programming course. Beyond that, there is specialization in several areas. As there are different disciplines within engineering, four different tracks have been developed, and each one feeds into one or more majors at the baccalaureate level. The fifth track is appropriate for engineering majors who are not explicitly listed in the first four tracks, such as chemical engineering or biomedical engineering. The five discipline clusters are:

1. Mechanical, Aerospace, and Manufacturing Engineering
2. Civil Engineering
3. Electrical Engineering
4. Computer and Software Engineering
5. General Engineering

LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Aerospace Engineer
- Agricultural Engineer
- Biomedical Engineer
- Chemical Engineer
- Civil Engineer
- Computer Engineer
- Construction Engineer
- Electrical Engineer
- Environmental Engineer
- Industrial Engineer
- Manufacturing Engineer
- Materials Engineer
- Mechanical Engineer
- Nuclear Engineer
- Software Engineer



**HARTNELL
COLLEGE**

TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree may differ from those needed to prepare for transfer. Students who plan to transfer to a four-year college or university should schedule an appointment with Hartnell College counselor to develop a student education plan before beginning their program.

TRANSFER RESOURCES

www.ASSIST.org – CSU and UC Articulation Agreements and Major Search Engine

CSU System Information - <http://www2.calstate.edu>

FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that Hartnell College offers a full array of financial aid programs, federal loan programs, and fee waivers.

<https://www.hartnell.edu/students/fa/net-price-calculator.html>