Division of Science, Technology, Engineering and Mathematics

Associate in Science in Engineering Design

This program prepares students to gain employment as a drafter/designer in the mechanical, architecture or manufacturing industries, or as a sales representative for technological equipment. The program provides students with skills to use computer-aided design (CAD) and advanced manufacturing tools. Students also learn to analyze design challenges and propose effective solutions. Students graduating from the Associate in Science in Engineering Design program will achieve proficiency in the college-wide learning outcomes.

Successful graduates of the program will be able to:

1. Demonstrate proficiency in advanced CAD skills by creating complex drawings using various industry-standard CAD software such as SolidWorks and Revit;
2. Develop a solution to an engineering problem that satisfies given parameters including feasibility, manufacturability and safety;
3. Produce professionally detailed engineering drawings through computer-aided design;
4. Collaborate effectively with clients and peers in a variety of disciplines, such as electrical engineering, computer science and biotechnology;
5. Apply analytical reasoning, creative processes, and knowledge of CAD technology to resolve design issues;
6. Extrapolate information, data and specifications from technical resources and standards for application to drawings, projects and reports;
7. Produce physical project models and documentation, such as engineering drawings and reports;
8. Critically read and evaluate research about mechanical engineering innovation, tools and application;
9. Use technology to create professionally detailed 2D and 3D engineering drawings.