

DESIGN TECHNOLOGY



CAREERS IN THIS FIELD

CAD/CAM Technician • CNC Programming

Designer • Drafter

Graphic Designer • Illustrator

Do you want to know the secrets of good design? The Design Technology program will show you how you can become a valuable member of an engineering team. You'll learn how to design solutions for modifying new or existing buildings, developing innovative commercial products, creating compelling animations and technical brochures, or design and program complex manufactured parts.

CONCENTRATIONS IN THIS PROGRAM

ARCHITECTURE

This concentration emphasizes the fundamentals of architectural design, architectural history, basic engineering principles, residential and commercial construction drawings, and construction materials and their applications. You'll take courses in mathematics, physical sciences, social sciences, communications, computer fundamentals, and the humanities.

CIVIL

The civil concentration places emphasis on construction materials, structural design and surveying. You will be prepared for employment with civil engineering firms, construction firms, surveying firms and highway departments.

COMPUTER AIDED DESIGN & MANUFACTURING

The CAD/CAM concentration focuses on both the skills and knowledge required to design and document a product as well as the techniques necessary to control the automated manufacturing process. CAD/CAM software is used to simplify the design and machining processes. The interface between CAD and CAM software tools and processes is explored in depth. The curriculum makes extensive use of 3D parametric solid part modeling. Emphasis is also placed on the generation of tool path data for control of sophisticated Computer Numerically Controlled (CNC) machine tools. Instruction includes both manual programming methods and leveraged techniques using modern CAM software. The student will have hands on experience programming and operating a 3-axis vertical CNC machining center as well as a CNC turning center in this concentration. Also included are courses in mathematics, physical sciences, social sciences, communications, computer fundamentals, and the humanities.

ASSOCIATE OF APPLIED SCIENCE (AAS) DEGREE

Two-year Associate of Applied Science degree programs prepare students for careers, career changes and career advancement. AAS programs may also prepare students for transfer to four-year institutions. The program content, which is approximately 30 percent general education, provides depth and breadth in conceptual and professional/technical skills. Professional/technical courses equip students with the skills to obtain employment and to advance in the workforce.

ASSOCIATE OF SCIENCE (AS) DEGREE

Two-year Associate of Science programs typically contain 40 percent or more general education, with the balance in technical and profession courses. The coursework provides students with a foundation for transfer to a related baccalaureate program at a four-year institution, and equips students with skills for the job market.

TECHNICAL CERTIFICATE (TC)

One-year Technical Certificate programs provide education in conceptual and technical skills for specific occupations. Each program contains a sequence of required courses in a recognized concentration within a program.

To learn more about employment and salary information for careers in this field, visit the U.S. Department of Labor's Bureau of Labor Statistics website at bls.gov and the official career site of the State of Indiana, indianacareerconnect.com.

Not all concentrations are offered at all campuses. Please contact your local Ivy Tech Community College campus for more information.



COMPUTER GRAPHICS

This concentration combines technical drawing and fine arts drawing. You will be prepared for a career in graphic illustration or commercial art, designing catalogs, magazine and newspaper advertising, and entry level animation used in movie production.

MECHANICAL

The Mechanical concentration prepares you to start a career in an engineering design support positions. Areas of study include design and manufacturing documentation, 3D parametric solid modeling, kinematic analysis, and manufacturing processes. Mechanical concentration graduates are skilled in wireframe, surface, solid, and parametric solid 3D modeling, as well as industrial graphics standards. You have the skills to contribute immediately and utilize all aspects of engineering design graphics. Also included are courses in mathematics, physical sciences, social sciences, communications, computer fundamentals, and the humanities.

CONTACT INFORMATION

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