

DESIGN TECHNOLOGY

SOUTHWEST



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.

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.

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.



SCHOOL OF TECHNOLOGY

DESIGN TECHNOLOGY

SOUTHWEST

ASSOCIATE OF APPLIED SCIENCE - ARCHITECTURE CONCENTRATION 62 Credit Hours

FIRST YEAR

Fall Semester

DESN 102	Technical Graphics
DESN 103	CAD Fundamentals
DESN 109	Construction Materials and Specifications
ENGL 111	English Composition
IVYT 1XX	Life Skills Elective
MATH 136	College Algebra

Spring Semester

DESN 105	Architectural Design I
DESN 106	Descriptive Geometry
DESN 108	Residential Design
DESN 220	Advanced CAD
COMM 101	Fundamentals of Public Speaking
MATH 137	Trigonometry With Analytic Geometry

SECOND YEAR

Fall Semester

DESN 204	Architectural Design II
DESN 208	Structural Design And Detailing
DESN 221	Statics
DESN 225	Portfolio Preparation
PHYS 101	Physics I

Spring Semester

DESN 211	Commercial Structures I
DESN 222	Strength of Materials
Elective	Humanities/Social Sciences
Elective	Technical Elective

ASSOCIATE OF APPLIED SCIENCE - CIVIL CONCENTRATION 62 Credit Hours

FIRST YEAR

Fall Semester

DESN 102	Technical Graphics
DESN 103	CAD Fundamentals
DESN 109	Construction Materials and Specifications
ENGL 111	English Composition
IVYT 1XX	Life Skills Elective
MATH 136	College Algebra

Spring Semester

DESN 106	Descriptive Geometry
DESN 220	Advanced CAD
DESN 228	Civil I
COMM 101	Fundamentals of Public Speaking
MATH 137	Trigonometry With Analytic Geometry

SECOND YEAR

Fall Semester

DESN 208	Structural Design And Detailing
DESN 210	Surveying
DESN 221	Statics
DESN 225	Portfolio Preparation
DESN 229	Civil II
PHYS 101	Physics I

Spring Semester

DESN 213	CAD Mapping
DESN 222	Strength of Materials
Elective	Humanities/Social Sciences
Elective	Technical Elective

ASSOCIATE OF APPLIED SCIENCE - MECHANICAL CONCENTRATION 62 Credit Hours

FIRST YEAR

Fall Semester

DESN 102	Technical Graphics
DESN 103	CAD Fundamentals
ADMF 115	Materials and Processes for Manufacturing
ENGL 111	English Composition
IVYT 1XX	Life Skills Elective
MATH 136	College Algebra

Spring Semester

DESN 104	Mechanical Graphics
DESN 106	Descriptive Geometry
DESN 206	Mechanical and Electrical Equipment
DESN 220	Advanced CAD
COMM 101	Fundamentals of Public Speaking
MATH 137	Trigonometry With Analytic Geometry

SECOND YEAR

Fall Semester

DESN 214	Kinematics of Machinery
DESN 221	Statics
DESN 225	Portfolio Preparation
DESN 230	Computer Modeling and Animation
PHYS 101	Physics I

Spring Semester

DESN 217	Design Process and Applications
DESN 222	Strength of Materials
Elective	Humanities/Social Sciences
Elective	Technical Elective

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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.

Ivy Tech Community College is accredited by North Central Association of Colleges and Schools.

