

DESIGN TECHNOLOGY (DESN)

IvyTech.edu/design-technology

OVERVIEW



The Design Technology program prepares students for challenging professions in the design disciplines, including: Architectural Design, Mechanical Design, and Computer Graphics. Students have access to the most current hardware and software. Lab facilities are equipped with high capacity workstations, 3D printers, 3D scanners and the latest in design and modeling software, and all coursework is application and lab based. Students find jobs with companies like CG Vision, Oerlikon Fairfield, Wabash National and Girtz Industries. Valuable experience is also gained through internships.

TWO-YEAR PROGRAM OPTIONS

ASSOCIATE OF SCIENCE

(60 credit hours = 4 semesters)

Two-year Associate of Science programs typically contain 40 percent or more general education, with the balance in technical and professional 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. AS graduates have the option to transfer to Purdue University to earn a bachelor's degree within the Construction Management (BCMT) program with the Polytechnic Institute or other four-year institutions.

ASSOCIATE OF APPLIED SCIENCE

(60 credit hours = 4 semesters)

Two-year Associate of Applied Science degree programs prepare students for careers, career changes and career advancement. AAS programs may also prepare students to transfer to four-year institutions. Professional/technical courses equip students with the skills to obtain employment and to advance in the workforce. Transfer options include : IU-Bachelor of Applied Science.

TRANSFER AGREEMENT / PURDUE UNIVERSITY

Construction Management (CMT)

Students interested in the field of construction management can begin their studies at Ivy Tech Community College Lafayette, transfer to Purdue University's Polytechnic Institute and pursue a bachelor's degree.

ONE-YEAR PROGRAM OPTIONS

TECHNICAL CERTIFICATE (TC)

Design Technology (31 credit hours)

CERTIFICATE (CT)

Architectural Design (18 credit hours)

Computer Graphics (18 credit hours)

Computer-Aided Design (18 credit hours)

Mechanical Design (18 credit hours)

STUDENT EMPLOYMENT SALARIES

Senior Designer/Project Manager	\$30k-65k
Drafter/Product Designer	\$52k
Engineering Administrator	\$49k
Mechanical Designer	\$47k
BIM Designer	\$30k
Graphic Designer	\$28k

ARCHITECTURAL DESIGN

This area provides students with the skills to work in the area of architectural drafting, detailing and presentation, simple structural design, planning, and mark-up. The curriculum is not intended to prepare students for registration as professional architects. Emphasis is on fundamentals, architectural design, building information modeling (BIM), basic engineering principles, 2D & 3D residential and commercial construction drawings, construction materials and their applications.

MECHANICAL DESIGN

The Mechanical concentration prepares students to start a career in an engineering design support positions. Areas of study include design and manufacturing documentation, constraint based modeling, 3D assemblies, design intent, design processes and manufacturing processes. Mechanical concentration graduates are skilled in a variety of 3D modeling applications. Students will obtain the skills to contribute immediately and utilize all aspects of engineering design graphics.

COMPUTER GRAPHICS

This concentration combines both the technical and aesthetics aspects of design. Students will be prepared for a career in creative and technical areas, which consist of computer illustration, packaging design, commercial art, and creating artwork for a variety of marketing materials.

IVY TECH BENEFITS

DUAL CREDIT

Dual credit is a program that allows high school students to remain in high school and earn college credit from Ivy Tech Community College at the same time. Typically, three college credits are earned per dual credit course with a limit of fifteen credits earned per school year. There is NO COST for dual credit courses that are taught in a high school classroom.

DUAL CREDIT COURSES

High School Course(s)

DOE #4800, #4836, #5640
DOE #4836, or #5640
DOE #4838
DOE #5652

Ivy Tech Course(s)

DESN 101-Introduction to Design Technology
DESN 113-Computer Aided Design
DESN 104-Mechanical Graphics
DESN 105-Architectural Design I

CERTIFICATIONS

- AutoCAD Certified Professional
- SolidWorks CSWA/CSWP
- Stratasys Additive MFG Certification

SOFTWARE

Adobe | AutoCAD | Inventor | SolidWorks | Revit | Vertex BD | Fusion 360

IF YOU'VE GOT QUESTIONS, WE'VE GOT ANSWERS.

FOR MORE INFORMATION:

School Advanced Manufacturing, Engineering & Applied Science

765.269.5229



Ivy Tech Community College-Lafayette

Design Technology

2018-2019

THE FOLLOWING SUGGESTED REGIONAL SEQUENCE INCLUDES ALL COURSE REQUIREMENTS FOR THIS DEGREE. YOU MUST CONSULT WITH AN ACADEMIC ADVISOR TO DETERMINE WHICH ELECTIVES BEST MEET YOUR CAREER GOALS.

ASSOCIATE OF APPLIED SCIENCE

Course #	Title	Credit Hours
Semester 1		
IVYT 113	Student Success in Technology	1
MATH 122	Applied Technical Mathematics	3
DESN 101	Intro. to Design Technology	3
DESN 113	2D Computer-Aided Design (CAD)	3
DESN 220	3D Computer-Aided Design (CAD)	3
ENGL 111	English Composition	3
or		
COMM 104	Workplace Communications	3
Semester 2		
DESN 104	Mechanical Graphics	3
DESN 105	Architectural Design I	3
XXXX XXX	Design Technology Statewide Elective	3
XXXX XXX	Design Technology Statewide Elective	3
XXXX XXX	Design Technology Statewide Elective	3
Semester 3		
DESN 218	Intro. Statistics and Strength of Materials	3
COMM 104	Workplace Communications	3
or		
ENGL 111	English Composition	3
SCIN 101	Science of Traditional & Alternative Energy	4
XXXX XXX	Design Technology Statewide Elective	3
XXXX XXX	Design Technology Statewide Elective	3
Semester 4		
DESN 217	Design Process & Applications	3
^ DESN 279	Design Technology Capstone	1
XXXX XXX	Design Technology Statewide Elective	3
XXXX XXX	Design Technology Statewide Elective	3
XXXX XXX	Humanities/Social & Behavioral Sciences Elect.	3
Total:		60

TECHNICAL CERTIFICATE

Semester 1		
IVYT 113	Student Success in Technology	1
MATH 122	Applied Technical Mathematics	3
DESN 101	Introduction to Design Technology	3
DESN 113	2D Computer-Aided Design (CAD)	3
DESN 220	3D Computer-Aided Design (CAD)	3
ENGL 111	English Composition	3
or		
COMM 104	Workplace Communications	3
Semester 2		
DESN 104	Mechanical Graphics	3
DESN 105	Architectural Design I	3
XXXX XXX	Design Technology Statewide Elective	3
XXXX XXX	Design Technology Statewide Elective	3
Total:		28

FOR MORE INFORMATION:

Jonathan D. Combs

Department Chair | Assistant Professor
 Program Chair | Design Technology
 jcombs@ivytech.edu
 {o: 765.269.5407 | p: 765.269.5229 | f: 765.269.5246}

ASSOCIATE OF SCIENCE

Course #	Title	Credit Hours
Semester 1		
IVYT 111	Student Success in University Transfer	1
ENGL 111	English Composition	3
MATH 137	Trigonometry with Analytic Geometry	3
DESN 101	Intro. to Design Technology	3
DESN 113	2D Computer-Aided Design (CAD)	3
DESN 220	3D Computer-Aided Design (CAD)	3
Semester 2		
COMM 101	Fundamentals of Public Speaking	3
MATH 136	College Algebra	3
PHYS 101	Physics I	4
XXXX XXX	Transfer Cluster Elective	3
XXXX XXX	Transfer Cluster Elective	3
Semester 3		
XXXX XXX	Scientific Ways of Knowing Elective	3 - 4
XXXX XXX	Transfer Cluster Elective	3
XXXX XXX	Transfer Cluster Elective	3
XXXX XXX	TGEC Elective	3
XXXX XXX	Social & Behavioral Ways of Knowing Elective	3
Semester 4		
XXXX XXX	TGEC Elective	3
XXXX XXX	Transfer Cluster Elective	3
XXXX XXX	Transfer Cluster Elective	3
^ DESN 279	Design Technology Capstone	1
XXXX XXX	Humanistic & Artistic Ways of Knowing Elect.	3
Total:		60

CERTIFICATES

Certificate	Course	Title	Credit Hours
Architectural Design	DESN 101	Introduction to Design Technology	3
	DESN 113	2D Computer-Aided Design (CAD)	3
	DESN 105	Architectural Design I	3
	DESN 115	BIM Architecture	3
	DESN 204	Architectural Design II	3
	DESN 109	Construction Materials & Specifications	3
Total:			18
Computer Graphics	DESN 101	Introduction to Design Technology	3
	DESN 113	2D Computer-Aided Design (CAD)	3
	DESN 130	Fund of Computer Graphics	3
	DESN 132	Raster Graphics	3
	DESN 133	Vector Graphics	3
	DESN 134	Design Visualization	3
Total:			18
Computer-Aided Design	DESN 101	Introduction to Design Technology	3
	DESN 113	2D Computer-Aided Design (CAD)	3
	DESN 220	3D CAD	3
	DESN 104	Mechanical Graphics	3
	DESN 105	Architectural Design I	3
	DESN 223	Parametric Solid Modeling	3
Total:			18
Mechanical Design	DESN 101	Introduction to Design Technology	3
	DESN 113	2D Computer-Aided Design (CAD)	3
	DESN 104	Mechanical Graphics	3
	DESN 220	3D CAD	3
	DESN 195	Manufacturing Principles & Design	3
	DESN 223	Parametric Solid Modeling	3
Total:			18

Symbol Key

^ Capstone Course