Drafting Course List

Summary

A list of courses that have a drafting component, along with the software used in the class and the programs that contain the class

List of Drafting Courses

Drafting

DFT 151 CAD I
Prerequisites: None
Corequisites: None
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing. This class uses AutoCAD software
Programs: Computer Aided Drafting Certificate, Construction Management, Electronics Engineering, Mechanical Engineering, Mechatronics Engineering

DFT 152 CAD II
Prerequisites: DFT 151
Corequisites: None
This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD

applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents. This class uses AutoCAD software
Programs: Computer Aided Drafting Certificate

DFT 153 CAD III
Prerequisites: DFT 151
Corequisites: None
This course covers basic principles of three-dimensional CAD wireframe and surface models. Topics include user coordinate systems, three-dimensional viewpoints, three-dimensional wireframes, and surface components and viewpoints. Upon completion, students should be able to create and manipulate three-dimensional wireframe and surface models. This class uses AutoCAD software
Programs: Computer Aided Drafting Certificate

DFT 154 Intro to Solid Modeling
Prerequisites: None
Corequisites: None
This course in an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering and analysis of solid models and creation of multi - view drawings. Upon completion, students should be able to use design techniques to create, edit, render and generate a multi - view drawing. This class uses Solidworks software
Programs: Computer Aided Drafting Certificate, Mechanical Engineering and Mechatronics Engineering

DFT 170 Engineering Graphics
Prerequisites: None
Corequisites: None
This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. This course has been approved for transfer under the CAA as a premajor and/or elective course requirement. This class uses Solidworks software
Programs: Transfer programs - Associate In Arts, Associate In Science, Associate In Engineering

DFT 254 Intermediate Solid Model/Render
Prerequisites: DFT 154
Corequisites: None
This course is a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering, and analysis of solid model assemblies and multi-view drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly. This class uses Solidworks software
Programs: Mechanical Engineering

Mechanical

MEC 110 Introduction to CAD/CAM

Prerequisites: None
Corequisites: None
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program. This class uses Fusion 360 software
Programs: Computer-Integrated Machining, Mechanical Engineering, Mechatronics Engineering, and Welding

Machining

MAC 131 Blueprint Reading/Mach I
Prerequisites: None
Corequisites: None
This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches. This class uses Fusion 360 software
Programs: Computer-Integrated Machining, Mechanical Engineering, and Mechatronics Engineering

MAC 132 Blueprint Reading/Mach II
Prerequisites: None
Corequisites: None
This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special

views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints. This class uses Fusion 360 software
Programs: Computer-Integrated Machining

Contining Education

AutoCAD 1 Design/Drafting

For information about our AutoCAD 1 class through Continuing Education, please email workforceprograms@abtech.edu.

Software Comparison

Feature	Fusion 360	AutoCAD	
Main Purpose	3D Modeling + simulation + CAM	2D drafting + technical drawings	3D
Key Strengths	All-in-one design & manufacturing	Precision 2D drawing tools	as
Collaboration	Cloud-based (access anywhere)	Desktop with cloud options	Des
Target Users	Product designers, mechanical engineers, machinists	Architects, civil engineers, drafters	M
Skill Level	Beginner to Intermediate	Beginner to Advanced (2D)	Inte
Cost for Students	Free (Educational)	Free (Educational, limited)	Stu
Learning Path	Great for integrated design & CNC	Best for drafting & schematics	
Example Projects	Custom product prototypes, enclosures	Floor plans, wiring diagrams	Gea
Courses	MEC-110 MAC-131 MAC-132	DFT-151 DFT-152 DFT-153	

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