

DIGITAL DESIGN GRAPHICS TECHNOLOGY (DDGT)

DDGT-110 Technical Drawing Fundamentals

3 Units

36 hours lecture; 54 hours lab; 90 hours total

An entry level course for students with little or no technical drawing experience. Topics covered include national and international drafting standards, drawing scales, two-dimensional geometric construction, orthographic projection, auxiliary views, sectioning, dimensioning, creation and modification of basic templates, and computer-aided drafting (CAD) using the latest version of Autodesk AutoCAD software. Transfers to both UC/CSU

DDGT-120 Digital Design Graphics Technology 1

7 Units

54 hours lecture; 216 hours lab; 270 hours total

Recommended Preparation: Completion of MACH-100 and TECH-92 with a minimum grade of C.

The first of a four course series in the Digital Design Graphics Technology A.S. Degree program. This course enables the student to learn and apply the fundamental skills of technical drawing towards the creation of graphical engineering documents per current industry standards. Topics covered include national and international drafting standards, drawing scales, two-dimensional and three-dimensional geometric construction, orthographic projection, auxiliary views, sectioning, dimensioning, external references, creation and modification of templates, computer-aided drafting (CAD), basic reverse engineering of parts, and three-dimensional modeling using the latest version of the Autodesk AutoCAD software.

Transfers to CSU only

DDGT-121 Digital Design Graphics Technology 2

7 Units

54 hours lecture; 216 hours lab; 270 hours total

Prerequisite: Completion of DDGT-120 with a minimum grade of C.

Recommended Preparation: Completion of TECH-107 with a minimum grade of C.

The second of a four course series in the Digital Design Graphics Technology A.S. Degree program. Advanced study in computer-aided drafting (CAD) three-dimensional parametric solid modeling, Boolean operations, CAD rendered images and drawings, advanced reverse engineering of parts and the engineering document revision process. Manufacturing materials and processes. Development of graphics and graphical manipulation for web and print. Development and posting of internet web pages for communication of engineering documents on department website. Students will create their own logo / brand.

Transfers to CSU only

DDGT-130 Introduction to 3D Printing

3 Units

36 hours lecture; 54 hours lab; 90 hours total

This course focuses on 3D Modeling and 3D Printing for the beginner and those currently in industry. This course will cover the study of additive manufacturing as it pertains to 3D Printing. Topics covered include 3D Parametric Modeling, 3D Printing applications, and the advantages and limitations of 3D printing technology. Students will learn how to create three-dimensional parts and assemblies using the current version of the Autodesk Fusion 360 software specifically for 3D Printing. This course also provides the opportunity for students to earn the Autodesk Certificate of Training and to prepare for the Autodesk Certified User exam.

Transfers to CSU only

DDGT-230 Digital Architectural Drafting & Design 1

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Recommended Preparation: Completion of DDGT-121 and TECH-107 with a minimum grade of C.

The first of a two course series in Digital Architectural Drafting and Design. This course enables the student to learn and apply fundamental skills towards the creation of graphical architectural documents per current industry standards using Building Information Modeling (BIM). This class focuses on, but is not limited to, residential design. Topics include building codes, symbology, floor plans, sectional views, interior/exterior elevations, and 3D rendering as relates to residential architecture and design using the latest release of the Autodesk Revit software. Transfers to both UC/CSU

DDGT-231 Digital Architectural Drafting & Design 2

5 Units

54 hours lecture; 108 hours lab; 162 hours total

Prerequisite: Completion of DDGT-230 with a minimum grade of C.

The second of a two-course series in Digital Architectural Drafting and Design. This course enables the student to learn and apply advanced skills towards the creation of graphical architectural documents per current industry standards using Building Information Modeling (BIM). This class focuses on, but is not limited to, commercial design. Topics include advanced study of digital graphic representations used by the architectural field, building codes, symbology, floor plans, sectional views, interior/exterior elevations, and 3D rendering as relates to commercial architecture and design using the latest release of the Autodesk Revit software.

Transfers to CSU only

DDGT-240 Digital Design Graphics Technology 3

7 Units

54 hours lecture; 216 hours lab; 270 hours total

Prerequisite: Completion of DDGT-121 with a minimum grade of C.

The third of a four course series in the Digital Design Graphics Technology A.S. Degree program. This course enables the student to learn and apply mechanical computer-aided design (CAD) drafting skills and techniques to working drawings including Geometric Dimensioning and Tolerancing (GD+T) and weldment symbology. Additional topics include external references and reverse engineering of assemblies. A study of 3D Printing. Students will print to the 3D Printer and retain the printed model. A study of 3ds Max for design visualization including: modeling, materials, lighting, rigging, animation, and rendering. A study of Adobe Premiere as a non-linear video editor. A combined study of 3ds Max and Adobe Premiere to create technically animated presentational videos for their professional portfolios as displayed on the department website.

Transfers to CSU only

DDGT-241 Digital Design Graphics Technology 4

7 Units

54 hours lecture; 216 hours lab; 270 hours total

Prerequisite: Completion of DDGT-240 with a minimum grade of C.

The last of a four course series in the Digital Design Graphics Technology A.S. Degree program. Study in technical 3D animation, video editing, and compositing. Study of Adobe After Effects as a tool for video compositing, motion graphics design, and animation. Students will work together on a group project showcasing all of the skills they have learned in the two year program. Students will put together and post a resume and portfolio with animated demo reel on their student websites. Students will prepare for "Autodesk Certified Professional Exams.

Transfers to CSU only