SUBJECTS AND COURSES

COURSE DESCRIPTIONS - DRAFTING (DDT)

DDT 104 Intro to Computer Aided Drafti
This course provides an introduction to basic Computer Aided Drafting and Design (CADD) functions and techniques, using ?hands-on? applications. Topics include terminology, hardware, basic CADD and operating system functions, file manipulation, and basic CADD software applications in producing softcopy and hardcopy. This is a CORE course.
5 Credit Hours

DDT 111 Fund of Drafting and Design Te
This course serves as an introduction to the field of drafting and design and provides a foundation for the entire curriculum. Topics include safety, lettering, tools and equipment, geometric constructions, orthographic sketching, and drawing. **5 Credit Hours**

DDT 113 Blueprint Reading
This course provides students with basic blueprint reading skills for various applications. Topics include terms, definitions and abbreviations, orthographic projection, dimensions and tolerences, lines and symbols, inductrial application scales, multiview projections, specifications, notes, elevations, sections, details, and schedules. upon completion, students should be able to interpret blueprint drawings in various formats.
4 Credit Hours

DDT 117 Manufacturing Processes
This course in materials and processes includes the principles and methodology of material selection, application, and manufacturing processes. Emphasis is directed to solids to include material characteristics, castings, forging, and die assemblies. Upon completion, students should be able to discuss and understand the significance of materials' properties, structure, basic manufacturing processes, and express and interpret material specifications. **3 Credit Hours**

DDT 124 Intro to Technical Drawing
This course covers sections, auxiliary views, and basic space geometry. Emphasis will be placed on the theory as well as the mechanics of applying sections, basic dimensioning, auxiliary views, and basic space geometry. **5 Credit Hours**

DDT 127 Intermediate CAD
This course covers intermediate-level concepts and applications of CADD. Emphasis will be placed on intermediate-level features, commands, and applications of CADD software. **5 Credit Hours**

DDT 128 Intermediate Technical Drawing
This course is designed to develop a strong foundation in common drafting and design practices and procedures. Topics include dimensioning concepts and pictorial drawings. **5 Credit Hours**

DDT 131 Basic Machine Drafting
DDT-111(Fund of Drafting and Design Te) with a grade of C or higher
This course in machine drafting and design provides instruction in the largest specialty area of drafting in the United States in terms of scope and job opportunities. Emphasis will be placed on the applications of multi-view drawings, including drawing organization and content, title blocks and parts lists, assembly drawings, detail drawings, dimensioning and application of engineering controls in producing industrial-type working drawings. Upon completion, students should be able to organize, layout, and produce industrial-type working drawings, including the application of title blocks, parts lists, assemblies, details, dimensions, and engineering controls. **5 Credit Hours**

DDT 133 Basic Surveying
This course covers the use of surveying instruments, mathematical calculations and the theory of land surveying. Topics include USGS benchmarks, measuring horizontal and vertical angles and distances, terms, and recording and interpreting field notes. Upon completion, students should be able to recognize benchmarks and measure, specify, and record field notes. **5 Credit Hours**

DDT 213 Civil Drafting-Maps-Plot Map
This course introduces the drafting practices, symbols, conventions, and standards utilized in civil engineering contract documents. Topics include site planning, land surveying, topographic surveys, along with civil terminology. Upon completion, students should be able to draw accurate plat maps giving legal descriptions of land parcels, draw simple site plans, and identify and use proper symbols and conventions on civil engineering drawings. **5 Credit Hours**

DDT 217 Building Codes-Ordinances-Zone
This course provides an in-depth study of building codes, municipal ordinances, zoning restrictions, and compliance with the Americans With Disability act as related to commercial drafting and design. Emphasis is placed upon working understanding of these topics. **3 Credit Hours**

DDT 225 Structural Steel Drafting
This course covers the theory and practical applications necessary to understand the basic design and terminology of structural steel components used in light commercial buildings. Emphasis is placed on structural steel drafting techniques, bolted and welded connections, framing plans, sections, fabrication and connection details, and bills of material. Upon completion, students should be able to produce engineering and shop drawings incorporating standard shapes, sizes, and details using the A.I.S.C. Manual and incorporating safety practices.
5 Credit Hours

DDT 231 Advanced CAD
This course allows the student to plan, execute, and present results of individual projects in Advanced CAD topics. Emphasis is placed on enhancing skill attainment in Advanced CAD skill sets. The student will be able to demonstrate and apply competencies identified and agreed upon between the student and instructor. **5 Credit Hours**

DDT 233 Intermediate 3D Modeling
This course provides instruction in 3D capabilities of CAD software. Emphasis is placed on 3D wire-frame, surface and solids modeling along with the development of 2D detail drawings from 3D models. Upon completion, students should be able to generate 3D surface and solid models and 2D orthographic production drawings from created solid models. **5 Credit Hours**

DDT 236 Design Project
This course allows the student to plan, execute, and present results of an individual design project. Emphasis is placed on attainment of skills related to a project agreed upon by the Instructor and student. The student will be able to demonstrate and apply competencies identified and agreed upon between the student and instructor. **5 Credit Hours**

DDT 244 Advanced 3D Modeling
This course is designed to challenge the imagination of the student in a 3-dimensional problem-solving environment. The student will develop to scale computer generated parts in the 3D computer environment. They will apply modeling concepts as Constraints, Photorealistic rendering, motion activated views, introduction to 3D part libraries, add-in software components, plastic model technology and simulations. They will be introduced to the concepts of 3D design and animation, then apply those concepts to a design project. Upon completion, students should be able to create parts in 3D models, produce working drawings and understand basic simulations. Students will also print files to ?.stl? format and create parts on a Direct Digital Manufacturing system or prototype.
5 Credit Hours

DDT 271 Drafting Internship
This course allows credit for substantial on-the-job experience within the field of drafting and design technology. **15 Credit Hours**