DDT 104. BASIC COMPUTER AIDED DRAFTING. 3 hrs.
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.

DDT 111. FUNDAMENTALS OF DRAFTING AND DESIGN TECHNOLOGY. 3 hrs.
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, and orthographic sketching and drawing.

DDT 124. BASIC TECHNICAL DRAWING. 3 hrs.
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.

DDT 125. SURFACE DEVELOPMENT. 3 hrs.
PREREQUISITE: DDT 104, 111, DDT 124, DDT 128 or permission of instructor
This course covers surface intersections and developments. Emphasis is placed on the basic types of intersections using simple geometric forms. Upon completion, students should be able to draw common types of surface intersections and handle them simply as applications of the concepts learned in this class.

DDT 127. INTERMEDIATE COMPUTER AIDED DRAFTING AND DESIGN. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor
This course covers intermediate-level concepts and application of CADD. Emphasis will be placed on intermediate-level features, commands, and applications of CADD software.

DDT 128. INTERMEDIATE TECHNICAL DRAWING. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124 or permission of instructor.
This course is designed to develop a strong foundation in common drafting and design practices and procedures. Topics include multi-view drawings with advanced dimensioning, basic tolerancing and pictorial drawings.

DDT 132. ARCHITECTURAL DRAFTING. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor.
This course in architectural design and drafting introduces basic terminology, concepts and principles of architectural design and drawing. Topics include design considerations, lettering, terminology, site plans, and construction drawings. Upon completion, students should be able to draw, dimension, and specify basic residential architectural construction drawings.

DDT 150. THEORY OF RESIDENTIAL DRAWING AND DESIGN. 3 hrs.
PREREQUISITE: DDT 104, 111, 124, 128 or permission of instructor.
This course provides the theory of residential drawing and design. Topics include architectural styles, house design, site and space planning, drawing requirements, construction materials and process, terminology, and specific types of drawings required to complete a full set of construction documents. Introductory, intermediate, and advanced topics are covered. Emphasis is placed on an understanding of the various issues and requirements essential to the field of residential drawing and design.

DDT 212. INTERMEDIATE ARCHITECTURAL DRAFTING. 3 hrs.
PREREQUISITE: DDT 132 or permission of instructor.
This second course in architectural design and drafting continues with more advanced and detailed architectural plans. Topics include interior elevations, plot plans, and interior details. Upon completion, students should be able to draw and specify advanced level plans, including various architectural details.

DDT 213. CIVIL DRAFTING, PLAT MAPS. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor.
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.

DDT 220. ADVANCED TECHNICAL DRAWING. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor.
This course covers the methods of providing size description and manufacturing information for production drawings. Emphasis will be placed on accepted dimensioning and tolerancing practices including Geometric Dimensioning and Tolerancing for both the Customary English System and ISO System. Upon competition, students should be able to apply dimensions, tolerances, and notes to drawing to acceptable standards, including Geometric Dimensioning and Tolerancing, and produce drawings using and specifying common threads and various fasteners, including welding methods.

DDT 222. ADVANCED ARCHITECTURAL DRAFTING. 3 hrs.
This third course in architectural design and drafting continues with advanced architectural plans, including a slant toward light commercial construction. Topics include climate control plans, application of building codes, building materials and finish specifications, cost estimating, and bid specifications. Upon completion, students should be able to apply current techniques in producing advanced-level architectural plans, including residential and light commercial application.

DDT 225. STRUCTURAL STEEL DRAFTING. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor.
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 materials. 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.
DDT 228. GEOGRAPHIC INFORMATION SYSTEMS. 3 hrs.
This course is designed as an introduction to the world of G.I.S. and what it’s about and builds on the skills attained in Civil Drafting I and II. Emphasis will be placed on utilizing G.I.S. software in conjunction with a CAD program to produce “intelligent” maps tied to a database in solving complex projects and problems. Upon completion, students should be able to manipulate attributed objects drawn on CAD/GIS software and accurately produce basic G.I.S. drawings.

DDT 231. ADVANCED CAD. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor.
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.

DDT 233. INTERMEDIATE 3D MODELING. 3 hrs.
PREREQUISITE: DDT 104, DDT 111, DDT 124, DDT 128 or permission of instructor.
This course emphasizes the more advanced techniques in 3D solid modeling. It covers advanced features of part creation, part editing, and analysis. Some techniques that will be discussed are: lofting, sweeping, sheet metal part creation, interference checking and stress analysis. Upon completion of the course, students should be able to create advanced 3D models and perform stress analysis/interference checking.

DDT 244. Advanced 3D Modeling 3hrs.
This course is designed to challenge the imagination of the student in a three dimensional problem-solving environment using solids modeling software. 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, a student 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.

DDT 260. PORTFOLIO. 3 hrs.
This course includes the preparation of technical and/or architectural drawings for a portfolio presentation and a resume for portfolio presentation. Hard copy drawings as well as electronic will be discussed, finalized, and developed for presentation. Upon completion, students should be able to prepare and produce a portfolio for presentation. This course includes the preparation of artwork and resume for portfolio presentation. Topics include production of a resume and portfolio for presentation during the last semester of course work. Upon completion, students should be able to prepare and produce a resume and portfolio for presentation in both hard copy as well as electronic copy.

DDT 271. DRAFTING INTERNSHIP. 3 hrs.
This course allows credit for substantial on-the-job experience within the field of Drafting and Design Technology.