DFTG - Drafting Technology

DFTG 1015 - Practical Mathematics for Drafting Technology
3.000 Credits 3.000 Contact Hours
Introduces and develops basic geometric and trigonometric concepts. Course content will emphasize geometric concepts and trigonometric concepts as they pertain to drafting/CAD.

DFTG 1101 - CAD Fundamentals
4.000 Credits 6.000 Contact Hours
Establishes safety practices as they relate to a drafting environment. Introduces basic CAD functions while presenting essential principles and practices for line relationships, scale, and geometric construction.

DFTG 1103 - Multiview/Basic Dimensioning
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1101
Provides multiview and pictorial sketching, orthographic drawing and fundamental dimensioning methods necessary to develop 2D and 3D views that completely describe machine parts for manufacture using intermediate CAD software techniques.

DFTG 1105 - 3D Mechanical Modeling
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1103
In the 3D Mechanical Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for mechanical drafting. The student will develop the skills necessary to create 3D models and presentation/working drawings.

DFTG 1107 - Advanced Dimensioning/Sectional Views
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1103
Provides multiview and pictorial sketching, orthographic drawing and fundamental dimensioning methods necessary to develop 2D and 3D views that completely describe machine parts for manufacture using intermediate CAD software techniques.

DFTG 1109 - Auxiliary Views/Surface Development
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1105
Introduces techniques necessary for auxiliary view drawings, surface development, and developing sheet metal parts. Topics include primary auxiliary views, secondary auxiliary views, surface development, and developing sheet metal parts.

DFTG 1111 - Fasteners
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1105
Introduces techniques necessary for auxiliary view drawings, surface development, and developing sheet metal parts. Topics include primary auxiliary views, secondary auxiliary views, surface development, and developing sheet metal parts.

DFTG 1113 - Assembly Drawings
4.000 Credits 6.000 Contact Hours
Corequisite: DFTG 1111
Provides knowledge and skills necessary to create working drawings for the manufacturer of machine parts. Topics include detail drawings, orthographic assembly drawings, pictorial assembly drawing, and utilization of technical reference source.

DFTG 1125 - Architectural Fundamentals
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1111
Introduces architectural fundamental principles and practice associated with architectural styles and drawing. Fundamentals of residential and commercial practices will be covered. Topics include specifications and materials; architectural styles, construction drawing practices and procedures, dimensioning, and scales.

DFTG 1127 - Architectural 3D Modeling
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1125
Introduces the essential skills necessary for assessing the expected materials, labor requirements, and costs for given structures or products. Also students will be introduced to architectural drawing techniques/practices necessary to produce a basic set of construction drawings given floor plan information. Topics include material take-offs; footing and foundation; floor plans; exterior elevations; site plans; and construction drawing techniques/practices.

DFTG 1131 - Residential Drawing II
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1129
Continues in-depth architectural drafting practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings.

DFTG 1133 - Commercial Drawing I
4.000 Credits 6.000 Contact Hours
Prerequisites: DFTG 1125
Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings.

DFTG 2010 – Engineering Graphics
4.000 Credits 6.000 Contact Hours
Covers the basics of computer terminology, input and output devices, file formatting, file management, for CAD software. Introduces students to the fundamentals of geometric construction, scale reading line relationship and basic history of the drafting concepts. Student will also be introduced to basic and intermediate CAD commands and procedures, and drafting concepts and principles.

DFTG 2020 – Visualization and Graphics
3.000 Credits 7.000 Contact Hours
Prerequisites: DFTG 1125
Introduces engineering graphics and component visualization. Sketching, line drawing, computer assisted drafting solid modeling, including parametric modeling, are practiced. Development of working drawings and requirements for drawing in a manufacturing and rapid pro-type environment are emphasized.

DFTG 2030 - Advanced 3D Modeling Architectural
4.000 Credits 7.000 Contact Hours
Prerequisites: DFTG 1127
Principles of architectural 3D modeling. Students will develop skills in creating 3D parametric models and presentations, lighting and shadow techniques for architectural renderings, and animation techniques for architectural presentations.

DFTG 2100 – Commercial Drawing II
4.000 Credits 6.000 Contact Hours
Continues in-depth architectural drafting practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings.
DFTG 2040 - Advanced 3D Modeling Mechanical
4.000 Credits 7.000 Contact Hours
Prerequisites: DFTG 1105
Acquaints students with concepts of the software related to sheet metal modeling for mechanical drafting, multi-body parts assemblies, and basic animation techniques for mechanical assembly presentations.

DFTG 2110 – Print Reading I
2.000 Credits 3.000 Contact Hours
Introduces the fundamental principles and practices associated with interpreting technical drawings. Topics include interpretation of blueprints and sketching.

DFTG 2120 - Print Reading for Architecture
3.000 Credits 5.000 Contact Hours
Emphasizes skills in reading, producing, and interpreting construction drawings. Topics include reading and measuring plans, identifying and understanding lines, symbols, dimensions, materials, schedules, and specifications.

DFTG 2210 – Print Reading II
2.000 Credits 3.000 Contact Hours
Prerequisites: DFTG 2110
Continues the development of blueprint reading as applied to technical drawing. Topics include threads (inch and metric), auxiliary views, geometric tolerancing, and weldments.

DFTG 2500 - Drafting Technology Exit Review
3.000 Credits 9.000 Contact Hours
Emphasizes students' production of portfolio-quality pieces. Focuses on the preparation for entry into the job market.