

Mechanical Drafter RTI and Work Process Schedule

Drafter, Mechanical	
Job Description: Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.	
RAPIDS Code: 0136CB	O*NET Code: 17-3013.00
Estimated Program Length: 2 years	
Apprenticeship Type: <input checked="" type="checkbox"/> Competency-Based <input type="checkbox"/> Time-Based <input type="checkbox"/> Hybrid	

Lanier Technical College RTI

Course Title	Credit Hours
DFTG 1101 CAD Fundamentals	4
DFTG 1103 Multiview / Basic Dimensioning	4
Drafting Elective	3
DFTG 1105 3D Mechanical Drawing	4
DFTG 1107 Adv. Dimensioning / Sect Views	4
DFTG 1109 Auxiliary Views	4
DFTG 1111 Fasteners	4
DFTG 1113 Assembly Drawings	4
Total Credit Hours	31
Total Contact Hours	585

Create graphical representations of mechanical equipment.		
Competencies	Date Completed	Initial
A. Develop detailed design drawings and specifications for mechanical equipment, dies, tools, and controls, using computer-assisted drafting (CAD) equipment.		
B. Lay out and draw schematic, orthographic, or angle views to depict functional relationships of components, assemblies, systems, and machines.		
C. Design scale or full-size blueprints of specialty items, such as Poultry process components and systems, and Industrial equipment components utilizing Geometric Dimensioning and Tolerancing principles and practice.		
D. Position instructions and comments onto drawings.		
E. Lay out, draw, and reproduce illustrations for reference manuals and technical publications to describe operation and maintenance of mechanical systems.		

<p>F. Measures, Traces, Sketches, and Draws dimensioned and tolerance components and sub-assemblies for effective reverse engineering. Considers form, fit, function and that elements must work within existing systems.</p>		
<p>G.-Demonstrates understanding of and ability to Design for Manufacture, ensuring the designed products are effectively producible on the equipment within the company and its suppliers.</p>		

Create images or other visual displays.		
Competencies	Date Completed	Initial
<p>A. Produce three-dimensional models, using computer-aided design (CAD) software.</p>		

Design electromechanical equipment or systems.		
Competencies	Date Completed	Initial
<p>A. Modify and revise designs to correct operating deficiencies or to reduce production problems.</p>		

Analyze design or requirements information for mechanical equipment or systems.		
Competencies	Date Completed	Initial
A. Review and analyze specifications, sketches, drawings, ideas, and related data to assess factors affecting component designs and the procedures and instructions to be followed.		
B. Compute mathematical formulas to develop and design detailed specifications for components or machinery, using computer-assisted equipment.		

Verify mathematical calculations.		
Competencies	Date Completed	Initial
A. Check dimensions of materials to be used and assign numbers to the materials.		

Confer with technical personnel to prepare designs or operational plans.		
Competencies	Date Completed	Initial
A. Coordinate with and consult other workers to design, lay out, or detail components and systems and to resolve design or other problems.		

Discuss designs or plans with clients.		
Competencies	Date Completed	Initial
A. Confer with customer representatives to review schematics and answer questions pertaining to installation of systems.		

Communication, Teamwork, Interpersonal		
Competencies	Date Completed	Initial
A. Demonstrates cross functional teamwork, collaboration, interpersonal communication effectiveness. Possesses presentation skills for internal and external use (ie w Customers). B. Skilled with Email, Excel ,Word and Powerpoint		

