Alabama Department of Postsecondary Education

Representing the Alabama Community College System

STATEWIDE CAREER/TECHNICAL EDUCATION COURSE ARTICULATION REVIEW MINUTES

Articulation Agreement Identifier: DDT 111 (2005-1) Identifier is the postsecondary course prefix followed by Plan-of-Instruction version number (e.g.; INT 100 (2005-1)).

Applicable CIP code(s): 15.1301

Postsecondary course prefix, number, and title: DDT 111 Fundamentals of Drafting and Design Technology

Secondary Course(s) of Study: 430110/410005 - Introduction to Drafting Design

Initial Review: October 15. 2009 Annual DPE Review: February 15, 2012

Effective date: **Fall Semester 2011**.

Course Content Analysis (all postsecondary course objectives must be sufficiently addressed in the secondary courses):

Notes:

1. **Skills and knowledge contained in the postsecondary course objectives must be present in the corresponding secondary objectives for a "match" to occur.**
2. **Postsecondary and Secondary objectives must reflect similar content and performance levels before the course articulation agreement will be recommended to the TEDAC Oversight Committee.**
3. **More than one Secondary course may be used in order to articulate to a Postsecondary course.**

Postsecondary Course Objectives	Secondary Course(s) and Location(s)	TEDAC Comments
Competency: Perform tasks in safe manner **Course Objectives:** Identify safety procedures for specific situations **Learning Objectives** • Identify drafting lab safety rules • Identify drafting lab safety procedures • Explain the appropriate drafting lab rules • Define appropriate drafting lab procedures **Competency:** Use proper drafting tools and equipment **Course Objectives:** Use tools as specified for a task **Learning Objectives** • Identify basic drafting tools • Explain basic drafting tools	**Introduction to Drafting and Design, Unit 2, Safety** **Content Standard** 2. Demonstrate the safe handling of drafting design tools according to classroom and environmental practices, procedures, and regulations. **Learning Objectives** 1. Follow general safety procedures. 2. Adjust equipment for maximum comfort and usability. 3. Describe ergonomic considerations. **Introduction to Drafting and Design, Unit 4, Drafting Instruments and Techniques** **Content Standard** 4. Demonstrate proper usage of drafting instruments. Examples: architectural scales, graphite, lead holders • Utilizing computer software for drafting applications • Reproducing drafting originals Examples: print, plot, blueprint, photocopy **Learning Objectives** 1. Identify basic drafting tools, use and care for various drafting tools. 2. Distinguish among the types of drafting media and leads. 3. Use drafting equipment in a safe and efficient manner. 4. Demonstrate basic drafting skills in the proper use of drafting tools, equipment, supplies, and materials 5. Illustrate technical techniques for drawing lines. **Introduction to Drafting and Design, Unit 5, Lettering and Drawing Techniques**	

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Postsecondary Course Objectives	Secondary Course(s) and Location(s)	TEDAC Comments
Competency: Draw geometric figures and construction **Course Objectives:** Draw geometric figures and construction **Learning Objectives** • Identify standard paper sizes in metric and standard sizes • Identify the proper title block • Identify basic geometric shapes and constructions **Competency**: Demonstrate proper lettering techniques **Course Objectives:** Perform proper lettering techniques	**Content Standard** 5. Demonstrate drafting techniques for freehand sketching, lettering, geometric figures, and the alphabet of lines to create a drawing. **Learning Objectives** 1. Apply sketching knowledge and techniques to solve the problem identified by the technical committee according to ANSI standards. 2. Explain the importance of lettering, the purpose of guidelines, basic stroke techniques, and correct proportioning and spacing techniques. 3. Letter clear, neat freehand notes and dimensions on a technical drawing or sketch 4. Illustrate techniques for technical lettering. 5. Produce lettering using various drafting instruments. 6. Identify different styles of lettering. 7. Demonstrate how the various linetypes and line weights are used on drawings. 8. Make freehand drawings to solve problems and convey ideas. 9. Illustrate Technical Techniques to Construct Basic Geometric Forms. 10. Identify the types of sketches. 11. Make freehand drawings to solve problems and convey ideas. 12. Sketch a diagram to correct proportional sizes. 13. Select the appropriate scale for the given drawing problem according to ANSI standards. 14. Derive proper scaling and dimensions acceptable to industrial requirements on each assigned drawing. 15. Explain the different types of scales utilized in technical	

Postsecondary Course Objectives	Secondary Course(s) and Location(s)	TEDAC Comments
Competency: Sketch and draw orthographic views of objects **Course Objectives:** Sketch and draw basic orthographic views of objects **Learning Objectives** Explain orthographic sketching and drawing	drafting and how they are used for measurements. **Introduction to Drafting and Design, Unit 6, Multi-View Drawigns** **Content Standard** 6. Construct basic multi-view two-dimensional drawings, including visualizing principle views, creating third-angle projection, selecting proper drawing scale, and organizing layout of primary views. **Learning Objectives** 1. Explain what a multi-view drawing is. 2. Define orthographic projection. 3. Explain the relationship of orthographic projection to multi-view drawing. 4. Identify the views necessary to make a multi-view drawing. 5. Construct basic multi-view two-dimensional drawings. • Visualization of views • Third-angle projection • Layout and balance of views 6. Describe the difference between first-angle and third-angle projection. 7. Determine the number of views needed to describe fully the shape and size of an object. 8. Locate multiple views on a drawing according to accepted principles of drafting. 9. Create the various views of an object. 10. Develop a multi-view drawing from the initial idea to a finished drawing using board drafting.	