



# **Alabama Department of Postsecondary Education**

## **Representing the Alabama Community College System**

### **STATEWIDE CAREER/TECHNICAL EDUCATION COURSE ARTICULATION REVIEW MINUTES**

Articulation Agreement Identifier: MAS 111 (2009-1) Identifier is the postsecondary course prefix followed by Plan-of-Instruction version number (e.g.; INT 100 (2007-1)).

Applicable CIP code(s): 46.0101

Postsecondary course prefix, number, and title: MAS 111 Masonry Fundamentals

Secondary Education course(s) title and number: 430115/410010 - Introduction to Masonry

Initial Review: February 11, 2010      DPE Annual Review: March 8, 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 Objectives and Location(s)	TEDAC Comments
<p><b>Module A <u>SAFETY</u></b></p> <p><b>PROFESSIONAL COMPETENCIES</b>  A1.0 Use safe work practices in the shop and on the work site.  A2.0 Value shop and work site safety.</p> <p><b>PERFORMANCE OBJECTIVES</b></p> <p>A1.1 Demonstrate the safe use of various masonry tools, related equipment, and protective attire.  A2.1 This competency is measured throughout the course.</p> <p><b>LEARNING OBJECTIVES</b></p> <p>A1.1.1 Describe the safe use of various masonry tools.  A1.1.2 Describe how to safely use various pieces of equipment.  A1.1.3 Explain the appropriate wear of personal protective equipment.  A1.1.4 Describe the dangers of horseplay in the shop or on the work site.  A1.1.5 Explain various advantages of keeping a clean shop.  A1.1.6 Identify an MSDS and explain the contents.</p>	<p><b><u>Introduction to Masonry, Unit 1-2, Safety Content Standard</u></b></p> <ol style="list-style-type: none"> <li>1. Apply safety rules, regulations, and procedures for masonry construction.</li> <li>2. Identify rules and regulations related to masonry construction.</li> </ol> <p><b><u>Learning Objectives</u></b></p> <ol style="list-style-type: none"> <li>1. Explain the role that safety plays on the job-site.</li> <li>2. Explain the appropriate safety precautions to take around common job-site hazards.</li> <li>3. Demonstrate the use and care of appropriate personal protective equipment (PPE)</li> <li>4. Properly don and remove personal protective equipment (safety goggles, hearing protection, hard hat, and personal fall protection).</li> <li>5. Explain the importance of Hazard Communications (HazCom) and material safety data sheets (MSDSs).</li> <li>6. Describe fire prevention and firefighting techniques.</li> <li>7. Define safe work procedures to use around electrical hazards.</li> <li>8. Demonstrate correct selection and use of electrical and hand tools.</li> </ol>	
<p><b>Module B <u>TOOL AND EQUIPMENT USE</u></b></p> <p><b>PROFESSIONAL COMPETENCIES</b>  B1.0 Use tools and equipment appropriately.</p> <p><b>PERFORMANCE OBJECTIVES</b>  B1.1 Use tools and equipment appropriately.</p>	<p><b><u>Introduction to Masonry, Unit 3-4, Orientation Content Standard</u></b></p> <ol style="list-style-type: none"> <li>3. Describe skills needed to work as a mason.</li> <li>4. Identify tools and equipment used in performing masonry work.</li> </ol>	

Postsecondary Course Objectives	Secondary Objectives and Location(s)	TEDAC Comments
<p><b>LEARNING OBJECTIVES</b></p> <p>B1.1.1 Identify and name the tools and equipment used in performing masonry work.</p> <p>B1.1.2 Associate trade terms with the appropriate tools and equipment.</p> <p>B1.1.3 Describe procedures for assembling and disassembling scaffolding.</p> <p>B1.1.4 Explain how to read the carpenter's side of the rule.</p> <p>B1.1.5 Explain how to read the masonry side of the rule.</p> <p>B1.1.6 Describe how to use various cutting tools.</p> <p>B1.1.7 Describe how to use a trowel.</p> <p>B1.1.8 Describe how to use various jointers.</p> <p>B1.1.9 Describe various uses of levels.</p> <p>B1.1.10 Describe the operation of mixers.</p> <p>B1.1.11 Describe how to use masonry saw.</p> <p><b>Module C <u>ORIENTATION TO MASONRY</u></b></p> <p><b>PROFESSIONAL COMPETENCIES</b></p> <p>C1.0 Describe the history of masonry.</p> <p><b>PERFORMANCE OBJECTIVES</b></p> <p>C1.1 This competency is measured cognitively.</p> <p><b>LEARNING OBJECTIVES</b></p> <p>C1.1.1 Describe the early beginnings of masonry.</p> <p>C1.1.2 Explain how the masonry trade has developed over time.</p> <p>C1.1.3 Explain career ladders and advancement possibilities in masonry work.</p> <p>C1.1.4 Describe the process for producing brick and block.</p>	<p><b><u>Learning Objectives</u></b></p> <ol style="list-style-type: none"> <li>1. Explain the definition of a mason.</li> <li>2. Explain the advancement opportunities in masonry.</li> <li>3. Explain the importance of communication skills in masonry.</li> <li>4. Define masonry units.</li> <li>5. Explain fractions and how they relate to reading a rule.</li> <li>6. Explain working conditions for a mason.</li> <li>7. Describe the tools of masonry</li> <li>8. Demonstrate the care and use of all the masonry tools and equipment.</li> </ol> <p><b><u>Introduction to Masonry, Unit 3-4, Orientation Content Standard</u></b></p> <ol style="list-style-type: none"> <li>3. Describe skills needed to work as a mason.</li> <li>4. Identify tools and equipment used in performing masonry work.</li> </ol> <p><b><u>Learning Objectives</u></b></p> <ol style="list-style-type: none"> <li>1. Explain the definition of a mason.</li> <li>2. Explain the advancement opportunities in masonry.</li> <li>3. Explain the importance of communication skills in masonry.</li> <li>4. Define masonry units.</li> <li>5. Explain fractions and how they relate to reading a rule.</li> <li>6. Explain working conditions for a mason.</li> <li>7. Describe the tools of masonry</li> <li>8. Demonstrate the care and use of all the masonry tools and equipment.</li> </ol>	

Postsecondary Course Objectives	Secondary Objectives and Location(s)	TEDAC Comments
<p><b>Module D <u>MIXING AND SPREADING MORTAR</u></b></p> <p><b>PROFESSIONAL COMPETENCIES</b>  D1.0 Use trade techniques for mixing and spreading mortar.</p> <p><b>PERFORMANCE OBJECTIVES</b>  D1.1 Mix mortar according to specifications.  D1.2 Spread mortar.</p> <p><b>LEARNING OBJECTIVES</b>  D1.1.1 Identify the amount of sand and water necessary to obtain the appropriate mixture.  D1.1.2 Explain the properties and characteristics of various types of mortar.  D1.1.3 Define various terms associated with mortar.  D1.1.4 Identify the common problems found in mortar application and describe an appropriate solution.  D1.1.5 Explain how to properly set up a mortar mixing area.  D1.1.6 Explain how to mix mortar by hand.  D1.1.7 Explain how to mix mortar with a mechanical mixer.  D1.1.8 Explain the necessity for keeping the guard in place while dumping mortar from a mixing machine.  D1.1.9 Explain the need for the mortar pan being level.  D1.1.10 Explain the reasons for a two feet clearance between your work area and your material.</p> <p>D1.2.1 Describe how to hold and load a trowel.</p>	<p><b><u>Introduction to Masonry, Unit 9-11, Jointing Content Standard</u></b></p> <p>9. Demonstrate basic block and brick construction techniques.  10. Use basic bricklaying procedures, including mixing of mortar, laying a mortar bed for block and brick, and laying bricks with head joints.  11. Identify composition, reinforcement, and forms used for concrete construction.</p> <p><b><u>Learning Objectives</u></b></p> <p>1. Lay simple block and brick projects.  2. Mix mortar with a hoe.  3. Spread a bed joint for brick.  4. Spread a bed joint for block.  5. Put on a head joint for brick.  6. Put on a head joint for block.  7. Explain concrete, expansion joints and reinforcement.</p>	