# MASONRY REPAIR & RESTORATION
Course Syllabus

<table>
<thead>
<tr>
<th>Course Number:</th>
<th>ABM-0959</th>
<th>OHLAP Credit:</th>
<th>No</th>
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<tbody>
<tr>
<td>OCAS Code:</td>
<td>None</td>
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<tr>
<td>Course Length:</td>
<td>45 Hours</td>
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<tr>
<td>Career Cluster:</td>
<td>Architecture &amp; Construction</td>
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<td>Career Pathway:</td>
<td>Construction</td>
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<td>Career Major(s):</td>
<td>Masonry</td>
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**Pre-requisite(s):**

This course introduces students to the most common problems that appear in masonry and ways to repair them. Students will be able to use tuckpointing tools, replace masonry units, seal cracks, use waterproofing techniques, and remove stains from masonry surfaces. Students will be able to select and use the appropriate PPE (Personal Protective Equipment) to complete the job.

**Textbooks:**

- Brick and Block Masonry by Curriculum and Instructional Materials Center, Oklahoma Department of Career Tech (1999)
- Fundamentals of Bricklaying by Curriculum and Instructional Materials Center, Oklahoma Department of Career Tech (1999)

**Course Objectives:**

**A. Understand Masonry Repair and Restoration.**

1. Recognize signs of deterioration in masonry structures.
2. Describe the causes of efflorescence, cracking, and faulty mortar joints.
3. Describe the procedures for preventing and correcting efflorescence, cracking, and faulty mortar joints.
4. Describe the procedures for preventing and correcting water damage in basements.
5. Describe the procedures for rebuilding fireplaces.
6. Recognize types of paint failures.
7. Describe the types of paint available for use on masonry.

**B. Repair and Renovate Brick Work.**

1. Use personal safety protection items as required.
   a. Safety glasses
   b. Gloves
   c. Hard hat
   d. Respirator
   e. Hearing protection
   f. Steel toed boots
2. Mark the damaged brick(s) to be removed.
3. Remove damaged brick using hand tools.
4. Remove damaged bricks using power tools.¹
5. Clean up the area before beginning the repair/renovation of the wall.¹
6. Replace damaged bricks.¹
   a. Tuckpointing¹
   b. Tool joint¹

¹ ODCTE objective
² NCCER objective

Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures: 1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.

Description of Classroom, Laboratories, and Equipment: Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility: The student must maintain a grade point average of 2.0 or better.