

ADVANCING SKILLS - PRESERVING CRAFT



HISTORIC MASONRY PRESERVATION CERTIFICATE

Program Overview

**International
 Masonry Institute/
 International Training
 and Education
 Foundation**
 17101 Science Drive
 Bowie, MD 20715

Masonry Hotline
 800.IMI.0988
 (800.464.0988)
 masonryquestions@
 imiweb.org

Training Hotline
 800.JOBS.IMI
 (800.562.7464)
 imitraining@imiweb.org

As the list of historic buildings and structures increases, so does the demand for qualified masons who have the necessary skill and knowledge in preserving them.

Traditional craft skills and contemporary repair techniques are critical to the preservation of historic buildings and structures. It is for this reason that the demand is growing for masons who have the qualifications and experience for preserving our historic building stock. To assure understanding and compliance related to masonry restoration and historic preservation, the International Masonry Institute (IMI) and the International Masonry Training Education Foundation (IMTEF), offers the Historic Masonry Preservation Certificate Program (HMPC). This program equips the members of the International Union of Bricklayers and Allied Craftworkers with an integrated knowledge in historic masonry preservation that includes study in key focus topics.

Core Modules

- Fundamentals of Historic Preservation
- Mortars in Preservation
- Introduction to Masonry Building Materials/Technology/Deterioration
- Traditional and Contemporary Repair Methods
- Historic Structure, Condition, & Testing Reports

Additional Training Modules

- | | |
|-----------------------------------|-----------------------------|
| • Brick Restoration | • Mold Making & Casting |
| • Terra Cotta Restoration | • Caulking/Sealants |
| • Stone Restoration | • Consolidants & Coatings |
| • Stone Carving & Dutchman Repair | • Pinning & Grout Injection |
| • Masonry Cleaning | • Safety Awareness Training |

Prerequisites

In order to enroll candidates must fulfill the following prerequisites:

- Be classified as a Journeyman.
- Must have 5 years of Journeyman level trade experience.
- Be member of the B.A.C. in good standing.

Course Information

- Current Schedule - 50-hour program at the IMI/BAC National or Regional Training Centers or as Site-Specific Training
- Instructors include IMI/IMTEF training staff as well as members of the international preservation community.
- In order to complete the HP certificate requirements, all training modules must be completed.
- Attendees must pass both the written exam as well as the hands-on portions of the program.

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Program Purpose, Scope, and Learning Objective

The IMI/IMTEF Historic Masonry Preservation Certificate Program is a 50-hour program that meets ASTM E2659-09 Standard Practice for Certificate Programs. The curriculum consisting of several training modules that are designed to enhance the working knowledge of traditional methods of craftsmanship and contemporary methods and materials for masonry preservation repairs. In addition, the program is designed to elevate the level of workmanship of the members of the Bricklayers and Allied Craftworkers Union and allow them to compete and maintain a competitive edge in the growing restoration field.

Pre requisites

To earn the IMI Historic Masonry Certificate Members interested in attending this training program must:

- 1) Be classified as a Journeyman.
- 2) Must have 5 yrs of Journeyman level trade experience.
- 3) Be a member of the B.A.C in good standing.

Additional Requirements for Participation

Participants must attend all training modules offered during the training period regardless of trade experience and must pass both, the written exam as well as the hands-on portions of the program. As the required hands-on sessions will be graded, it is encouraged that participants bring any specialty item tools they would like to use. Otherwise, IMI will supply all hand tools needed to complete the hands-on session. Proper work attire is required.

Instructor Qualifications

All classroom training sessions are presented by persons with advanced degrees in historic preservation or related field (such as: engineering, architecture) or presented by persons who have extensive knowledge and experience in masonry preservation. It is preferred that all hands-on training sessions are presented by graduates of the IMI Instructor Certificate Program, or by persons currently enrolled in the program. Guest speakers shall have extensive knowledge in the field of masonry restoration.

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Academic or Continuing Education Credit Earned

The IMI Historic Masonry Preservation Certificate program is not to be confused with any state, or professional certifications. Completing this certificate program will not provide students with the same recognition that is gained from a degree program or other accredited program. However, persons who attend this program will undoubtedly gain additional knowledge and skill sets that will further enhance their job opportunities in the field of masonry preservation.

Quality Control Plan

The IMI/IMTEF Historic Masonry Certificate program committee members have the responsibility in maintaining the validity and integrity of the hands-on skills assessment as well as the course tests. This is to ensure that they both accurately evaluate the trainees' performance of work practices and procedures but their knowledge and retention of the course training modules.

In order to keep up with new developments in the field, the program committee is also responsible for revising and keeping the program curriculum current and up-to-date. In order to ensure that the content meets the needs of the rank and file members, its committee members are encouraged to attend conferences in historic masonry preservation whenever possible.

Training Locations

The Historic Masonry Preservation Certificate Program is offered at the Flynn Training Center in Bowie, MD or Regional IMI/BAC Training Centers. There is a minimum of two trainers assigned to deliver this program.



Course Test Blueprint

In order to assess the knowledge attained by the participants, the instructors utilize one examination with 50 questions. All participants must receive a score of at least 70% on the written test in order to pass the course. Trainees who do not pass the written test may take it again. For those with reading or low-literacy difficulties, the test can be given orally.

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Hands-on Skills Assessment

It may be impractical to perform hands-on assessments for some of the training modules contained in the program (for ex: masonry cleaning) However, those modules that can have hands-on such as stone patching, pointing, brick replacement are evaluated as participants perform hands-on activities Their effectiveness is scored using a Hands-on Assessment checklist in addition to the written exam. These hands-on evaluations ensure that trainees can perform the required task from the knowledge gained from lectures. Evaluations focus on practical application of work-place best practices while incorporating proper safety techniques. Each participant must successfully complete the hands-on skills assessment and receive a passing score on the course test to receive a certificate of completion.

Evaluation Methods and Review of Instructor Competency

All IMI training courses, as well as their instructors are evaluated in several ways. First, results of written exams are reviewed for possible weakness in class presentations. Second, each trainee completes an anonymous course evaluation form. The programs committee will evaluate changes based on the results of these evaluations. The third and final method utilized to ensure trainers are competent is having members of the committee conduct annual evaluations of the selected program instructors. Any deficiencies in the instructor performance will be discussed and shared privately with the instructors.

Continuing Education Requirements of Program Completers

In order to maintain the certificate in good standing, all completers will be required to attend continuing education training sessions every seven years. The length and subject matter of the training sessions will be determined by the program committee based on new technological advances in the field of masonry preservation as well as the needs of the member. This update training will be conducted at local training centers whenever possible; upon completion, attendees will receive a renewed certificate in historic masonry.

Committee Members

Bob Arnold - National Training Director
Pete Kohl - Deputy Training Director
Roy Ingraffia - Director of Industry Development & Technical Services
Amy Woods – Director of Technical Education

Core Modules

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Fundamentals of Historic Preservation

This module discusses the history of the preservation movement as well as current trends in the field of preservation. Participants gain a more in-depth understanding on the four treatment approaches: Preservation, Restoration, Stabilization and Rehabilitation.

Mortars in Preservation

This module covers the development and use of masonry mortars in the U.S. Upon the conclusion of this module, participants gain an in-depth understanding of lime-based mortars, natural cements, use of pozzolans and hydraulic based mortars. Lectures focus on the chemistry behind mortars and their appropriateness depending on masonry types, masonry quality and location. This session includes a hands-on workshop where participants will prepare and install lime-based mortars as well as utilize several mortar extraction methods.

Introduction to Masonry Building Materials/Technology/Deterioration

In this module participants are provided with a general overview on how the construction process evolved. This includes exploring the timeline of building technology and its impact on the American way of building. Participants are also provided with an overview of basic architectural vocabulary and examine the properties of building materials and the mechanism of deterioration. Other topics include diagnostic methods, including examining and evaluating historic fabric, and sustainability issues. Upon completion participants have a better understanding of the building as a system.

Traditional and Contemporary Repair Methods

This module offers participants an overview of both traditional repair methods and materials as well as contemporary and cutting edge approaches. This module introduces specialized materials which will be used in the hands-on portion of the program.

Historic Structure, Condition, & Testing Reports

This module introduces participants to the types of research, survey, and testing that takes place before physical restoration work begins. The module follows the work of the architect, engineer, and conservator and explains the role each plays in understanding the deterioration phenomenon and selecting repair methods and materials.

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Brick Restoration



Terra Cotta Restoration



Stone Restoration



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Carving, & Dutchman Repair



Masonry Cleaning



Mold Making & Casting



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Consolidants & Coatings



Pinning & Grout Injection



Safety Awareness Training