



E0312 Fundamentals of Building Science

Course Dates:

September 20–24, 2021

Travel Dates:

September 19 and September 25, 2021

Course Length:

This course is 4 days in length.

Location:

Emergency Management Institute (EMI),
National Emergency Training Center
(NETC), Emmitsburg, Maryland.

Course Description:

This course is designed to present information on the risks posed by natural hazards, and the basic scientific and engineering concepts for hazard-resistant buildings and facilities. The course reviews information pertaining to impacts of wind, flood, earthquake, and wildland/urban interface fire on the constructed environment and explains key performance and construction issues related to floods, wind, wildfires, and earthquakes.

Course Goal:

Upon completion of this course, participants should be able to:

1. Understand the characteristics of each hazard.
2. Identify sources of information concerning critical properties of each hazard (e.g., hazard size and intensity classification systems).
3. Recognize the damage risk to the built environment for each hazard.

4. Recognize hazard-resistant design provisions in the model building codes for each hazard.
5. Identify mitigation options and technologies for each hazard.
6. Identify current and emerging critical issues for each hazard.
7. Identify resources of technical information helpful in developing and evaluating proposed mitigation strategies.
8. Describe FEMA Building Sciences Branch roles and responsibilities in advancing hazard-resilient communities, its programs, and activities for pre- and post-disaster hazard mitigation.
9. Recognize key issues of wind, flood, earthquake, and wildland/urban interface fire hazards and respective hazard mitigation.
10. Describe potential risk synergies present in multihazard environments and key issues in recognizing and managing risk associated with multihazard environments.

Required Prerequisites:

None

Continuing Education Units (CEUs):

EMI awards 2.8 CEUs for completion of this course.

Continuing Education Credits (CECs):

The Association of State Floodplain Managers (ASFPM) awards 12 CECs for completion of this course.

TRAINING OPPORTUNITY

Target Audience:

The primary audience for this course is engineers and architects. Floodplain Managers and Building Code Officials are also encouraged to attend. Hazard Mitigation, Planning, Zoning, Public Works, and other Building Officials with building science knowledge and those from the private sector, such as engineering firms, may also apply.

To Apply:

Scan the QR Code, or [click this link for information on how to apply for EMI courses](#):



<https://training.fema.gov/onlineadmissions/>

Application Review:

To be evaluated for admission into this course, please upload required attachments. Please refer to the Target Audience above and indicate how you meet the requirements based upon your position and experience.

Travel and Housing Information:

Upon acceptance into the course, NETC Admissions will email an Acceptance Letter and Welcome Package outlining travel information, NETC shuttle services, lodging, and other logistics. Scan the QR Code below, or [click this link for a PDF copy of the NETC Welcome Package online](#):



Welcome Package (fema.gov)

Lodging is provided for course participants on the NETC campus. Participants staying overnight on campus are required to purchase a meal ticket for the duration of the training activity.

Notify the NETC Transportation Office at least 2 weeks prior to the course date to reserve a shuttle seat.

Details for the above are included in the Welcome Package.

Notice to Applicants for EMI courses:

Individuals applying for EMI classes will be required to register using the FEMA Student Identification (SID) number. This number will be used in place of the Social Security Number (SSN) on your application form. **The SSN is no longer required.**

How do I obtain my FEMA SID number?

Step 1: [To register, go to:](#)

<https://cdp.dhs.gov/femasid>

Step 2: Click on the "Register for a FEMA SID" button on screen.

Step 3: Follow the instructions and provide the necessary information to create your account.

Step 4: You will receive an email with your SID number. You should save this number in a secure location.

EMI Training Point of Contact:

For additional information, contact the Mitigation Branch at (301) 447-1152 or by email at fema-emi-mit@fema.dhs.gov.

TRAINING OPPORTUNITY