



**US Army Corps
of Engineers®**

ENGINEERING AND CONSTRUCTION BULLETIN

No. 2017-8

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SUBJECT: Engineering and Construction Training for Medical Facility Projects

CATEGORY: Guidance

1. This ECB provides training guidance to improve project management, design and construction quality for medical facility projects including: Military Construction (MILCON); Sustainment, Restoration, Modernization (SRM) funded “clinical” facilities, and laboratory facilities; and support to Veterans Affairs (VA). This guidance applies to Districts and Centers having CONUS or OCONUS medical facilities projects.

2. Training is available to enhance knowledge of USACE medical program execution, improve quality of medical facility delivery and increase awareness of life safety considerations during design and construction of medical facility projects. This includes training through the USACE PROSPECT program and the American Society for Healthcare Engineering (ASHE).

a. USACE PROSPECT Course #227, ‘Medical MILCON/SRM Program Execution’, provides information and guidance on medical MILCON/SRM project development, funding and execution through the medical project lifecycle. This course provides a unique perspective of the knowledge and skills required to manage medical projects while at the same time providing a physical environment that promotes health and healing for patients who are using or will use the facility. This PROSPECT course addresses requirements in UFC 4-510-01, as well as other current code and regulatory requirements, and is taught in conjunction with ASHE. Students receive the ASHE Health Care Construction (HCC) Certificate upon course completion. Attachment A further describes this PROSPECT course.

b. ASHE provides several programs for architects, designers, project managers, program managers, and construction managers to enhance their knowledge of medical facility design, construction and project execution:

(1) The *Health Care Construction (HCC) Certificate* workshop is designed to prepare those who are involved in the planning, design and construction of health care facilities with the information and resources to work in the health care environment. The HCC course focuses on topics and situations that are unique to health care facilities and those factors that differentiate health care construction and renovation from other types of projects. This program consists of an on-line introduction followed by a two-day seminar. This training is further described in Attachment B.

(2) Attachment C provides information on other ASHE training offerings including Managing Life Safety, Managing the Planning, Design and Construction Process, and Certified Healthcare Constructor.

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3. An informed design and construction team is critical to the successful execution of medical facilities projects. It is highly recommended that E&C members involved in medical projects complete the PROSPECT medical course which includes receipt of the ASHE Health Care Construction Certificate. Alternatively, individuals may obtain the ASHE Health Care Construction Certificate through the ASHE HCC training, however this training does not address specifics of the Medical MILCON and SRM life cycle program execution. Review of the content of these two courses will assist the leadership in determining which training opportunity provides the better outcome for the individuals and the organization.
4. Personnel who have received the ASHE Health Care Construction Certificate are listed at the website below by searching the organization block using “Corps of Engineers” or “USACE”:
http://www.ashe.org/inc/dhtml/past_attendees/.
5. It is highly recommended that a proactive approach be taken on accomplishing the training noted in this ECB for on-going and future medical projects.
6. **Point of Contact.** HQUSACE point of contact for this ECB is Paul Dicker, CECW-CE. (202) 761-0995.

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Encl.

Attachment A – PROSPECT Course #227 – Medical MILCON/SRM Program Execution

Attachment B – ASHE Health Care Construction (HCC) Certificate Workshop

Attachment C – American Society for Healthcare Engineering Offerings

Attachment A: PROSPECT Course #227 – Medical MILCON/SRM Program Execution

Purpose:

This course is taught in conjunction with the American Society for Healthcare Engineering (ASHE) and is designed to teach the standard practices for design, construction, operations and maintenance of healthcare facilities. It provides project managers, resident engineers, design managers, construction managers, and QA personnel with procedures, tools, techniques and healthcare knowledge to effectively manage Medical Military Construction (MILCON) and Sustainment, Restoration and Modernization (SRM) projects. This course also provides members of the project delivery team, including budget support and contracting personnel, an overview of the medical program project execution process and procedures.

Description:

This course provides an overview of the rules and practices that govern the construction of medical healthcare facilities from programming thru construction and occupancy. Construction of medical facility types is governed by a strict set of codes and requirements as established by The Joint Commission (TJC). This course will increase participants' understanding of code and compliance issues relevant to working in a health care environment. Topics covered in this course include: healthcare industry fundamentals, planning, design and construction process, patient safety, project management principles, and the medical funding stream. Presentations, case studies, or group exercises may be used to encourage meaningful discussions and provide hands-on experience. After completion of this course, each student should be able to support Medical and SRM project execution as a member of Medical or SRM Project Delivery Teams. Upon successful completion of this course, each student will receive the American Society for Healthcare Engineering (ASHE) Health Care Construction Certificate and be registered at the ASHE website.

This course provides Continuing Education Units to all students and Professional Development Units to students who possess the Project Management Professional (PMP) certification.

Prerequisite:

Nominees must be GS 7-9-11 employees who provide Quality Assurance/Construction Quality Management (QA/CQM) construction surveillance of medical or laboratory facilities; GS 11-14 project managers, program managers, construction managers, resident and area engineers; design engineers who design or review medical construction plans and specifications. Students who register for this course will be required to take ASHE web-based preparatory training prior to arrival at course site.

PROSPECT Course information is found at: <http://ulc.usace.army.mil/>.

Attachment B: ASHE Health Care Construction (HCC) Certificate Workshop

Description:

Construction and renovation of health care facilities present many challenges that are unique to those types of occupancies and facilities. The *Health Care Construction (HCC) Certificate* course is designed to prepare those who are involved in the planning, design and construction of health care facilities with the information and resources to work in the health care environment. The HCC course focuses on topics and situations that are unique to health care facilities and those factors that differentiate health care construction and renovation from other types of projects.

The HCC course consists of an on-line introduction followed by a two-day face-to-face seminar. The online portion of the training can be accessed up to one month prior to the seminar at the participant's convenience. The two-day seminar will then build on the topics that are introduced in the on-line training. The seminar is presented using a combination of presentations, discussion, interactive exercises and problem solving.

Topics that are covered in the HCC include:

- The health care planning, design and construction process
- The health care regulatory environment and process, including the Joint Commission
- Life safety and fire safety considerations unique to health care facilities (based on NFPA 101, *The Life Safety Code*®)
- Construction risk assessment
- Infection control and prevention related to the physical environment
- Health care mechanical, electrical and plumbing systems
- Medical gas systems, including NFPA 99 requirements
- Medical equipment and technology
- Expectations for the construction team and construction process

Participants receive the ASHE Health Care Construction Certificate as well as Continuing Education Units (CEUs) from the American Hospital Association (AHA).

Attachment C: American Society for Healthcare Engineering Offerings

Description:

ASHE provides several education courses for architects, designers, project managers, program managers, and construction managers that will enhance their medical facility design and construction knowledge. The ASHE web-link, which provides more specific information on programs, schedules and cost, is: <http://www.ashe.org/education/calendar.shtml>

The ASHE *Managing Life Safety* resource is a self-paced course that provides information on the requirements of the *Life Safety Code*® and resources to manage a facility's life safety program. This is an on-line learning tool. The ASHE web site includes a video that provides more detail about this program.

The ASHE seminar, *Managing the Planning, Design and Construction Process*, with intended audience including Healthcare Construction Project Managers, Architects and Design Engineers, provides knowledge from functional programming through occupancy and project closeout.

In addition to the education courses mentioned above, the American Hospital Association (AHA) offers a professional certification program for those that complete all requirements to become a *Certified Healthcare Constructor (CHC)*. This certification program includes three components: a) Education and experience; b) A 115-item multiple-choice Certification Examination; and c) A renewal requirement. Additional information on this certification program is at web-link: <http://www.aha.org/certifcenter/CHC/index.shtml>.

ASHE offers optional training to help prepare candidates to take the CHC exam. Information regarding this training is available at web-link: <http://www.ashe.org/education/chc/index.shtml>