

# <u>COURSE OVERVIEW SE0009</u> <u>Certified Construction Manager (CCM)</u> (CMAA Exam Preparation Training)

# Course Title

Certified Construction Manager (CCM) (CMAA Exam Preparation Training)

# Course Date/Venue

October 20-24, 2024/Crowne Meeting Room, Crowne Plaza Al Khobar, an IHG Hotel, Al Khobar, KSA

(30 PDHs)

AWARN

Course Reference SE0009

Course Duration/Credits Five days/3.0 CEUs/30 PDHs

# Course Description







This course is designed to provide participants with an up-to-date knowledge in Certified Construction Manager (CCM) and to prepare the participants to pass the CCM examination.

The course will also discuss the qualifications for becoming a Certified Construction Manager (CCM); the CMAA's code of ethics, key industry terms and how project delivery systems impact CM services; the similarities and differences between project and program management; the role of program management during each project phase; the key members needed on a project management team; and the project management and its functions and goals.



Further, the course will also discuss the key skills of a project manager and the common tools used for project management; the type of contract, commonalities and differences in the contract forms; the required contract administrative activities in each project phase; the importance of time management in CM and the primary objectives of CPM scheduling; and the fundamentals of CPM scheduling and how time impacts the project schedule.



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During this interactive course, participants will learn the primary uses of BIM and the quality management terminology; the quality management plan, AQ/QC processes and reviews for quality assurance; the common features of a sustainable project and customizing CM tools for a project with sustainability goals and requirements; the CM's roles and responsibilities for controlling project costs; the cost management system and monitoring and managing costs during all project phases; the CM's roles and responsibilities related to safety including the OSHA's requirements and guidelines for construction safety; and the liabilities associated with safety violations and reporting safety hazards.

The course includes a comprehensive textbook entitled "CCM Study Guide 2022" published by CMAA, which will be given to the participants to help them appreciate the principles presented in the course.

### Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Prepare for the next CMAA-CCM exam and have enough knowledge and skills to pass such exam in order to get certified as a "*Certified Construction Manager* (*CCM*)" from The Construction Management Association of America (CMAA)
- Describe the qualifications for becoming a Certified Construction Manager (CCM) and discuss the CMAA's code of ethics
- Define the key industry terms and distinguish between project and program management
- Discuss how project delivery systems impact CM services including the legal relationships between CM and owner and the typical fee structures
- Describe the similarities and differences between project and program management
- Identify the role of program management during each project phase and the key members needed on a project management team
- Define project management and describe its functions and goals
- Recognize the key skills of a project manager, the common tools used for project management and the project manager's role during each construction phase
- Identify the type of contract, the commonalities and differences in the contract forms and the required contract administrative activities in each project phase
- Explain the importance of time management in CM and the primary objectives of CPM scheduling
- Discuss the fundamentals of CPM scheduling and how time impacts the project schedule
- Recognize the primary uses of BIM including the role of the CM with BIM and the role of BIM during each phase of the project
- Define quality management terminology, apply quality management plan, evaluate the AQ/QC processes and conduct reviews for quality assurance
- Identify the common features of a sustainable project and customize CM tools for a project with sustainability goals and requirements
- Develop a sustainability plan, provide leadership to achieve a project's goals and requirements and identify tasks by phase



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- Identify CM's roles and responsibilities for controlling project costs and evaluate project and construction estimates and budget
- Explain the cost management system and monitor and manage costs during all project phases
- Discuss the CM's roles and responsibilities related to safety including the OSHA's requirements and guidelines for construction safety
- Recognize liabilities associated with safety violations and report safety hazards

## **Exclusive Smart Training Kit - H-STK®**



Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK**<sup>®</sup>). The **H-STK**<sup>®</sup> consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

### Who Should Attend

The course provides an overview of all significant aspects and considerations of project construction management for program and project managers, construction managers, resident engineers, general contractors and subcontractors, project team members, project support and those who are looking to pass the CCM examination.

### Exam Eligibility & Structure

To become a Certified Construction Manager (CCM), you must have a requisite amount of experience and/or education. The eligibility requirements are outlined below:-

• Educational Requirements

The Board of Governors does not require formal education; however, a degree may be used in place of professional experience to accompany your RIC experience. If you choose to use your undergraduate or graduate degree in place of professional experience, the following are considered Qualifying CM degrees that are acceptable:-

- construction management,
- construction science/technology,
- civil engineering,
- industrial engineering,
- mechanical engineering,
- electrical engineering,
- chemical engineering,
- architectural engineering and
- architecture.



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\*Responsible-in-charge (RIC)

A minimum of 48 non-overlapping months of RIC experience in the domains of knowledge and skills, verified through references, are necessary for the applicant to move forward to completing the application.

CMCI accepts degrees from post-secondary institutions with accredited degree programs from ACCE (American Council for Construction Education), ABET (Accreditation Board for Engineering and Technology), and NAAB (National Architecture Accrediting Board).

If you hold and wish to apply credit for a degree from a foreign country, it must be authenticated by an approved Foreign degree equivalency evaluation company. The CMCI policy on evaluating international academic credentials is located on the CMAA website.

Those who hold an associates level (2-year) qualifying CM degree accredited by ABET, ACCE, or NAAB may substitute their 2-year degree plus 4 additional years of general design or construction experience. The 4 years of general experience may not overlap with the 48 months of RIC experience.

Those who hold a bachelors level (4-year) degree that is not a qualifying CM degree accredited by ABET, ACCE, or NAAB may choose to use their degree, but are required to provide a minimum of 72 months of non-overlapping RIC experience. All degrees submitted from the United States must be recognized through the Council for Higher Education Accreditation (CHEA).

Those who do not hold a degree may substitute 8 additional years of general design or construction experience **OR** an active Certified Associate Construction Manager (CACM) credential granted by CMCI. The 8 years of general experience may not overlap with the 48 months of RIC experience.

Finally, those who are able to provide a minimum of 96 months of non-overlapping RIC may substitute their additional RIC experience to meet the educational and RIC experience requirements.



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# CMAA-CCM Certificate(s)

\*) B CMAA-CCM certificates will be issued to participants who have successfully passed the CMAA-CCM examination.



(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

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### **Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations:-

- - The International Accreditors for Continuing Education and Training (IACET USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.



British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

### Training Fee

**US\$ 7,000** per Delegate + **VAT**. This rate includes H-STK<sup>®</sup> (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day. In addition to the Course Manual, participants will receive an e-book "*CCM Study Guide*", published by Construction Management Association of America.

Exam Fee US\$ 1,000 per Delegate + VAT.



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#### Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Jim Davies, CSWIP, IIW, is a Senior Inspection & Construction Engineer with over 40 years of extensive experience within the Power, Petrochemical, Refinery, Oil & Gas and Aviation industries. His expertise includes major Repair of Steel Pipework, Composite Wrapping, Stainless Steel, Carbon Steel, Pressure Testing of Piping Systems, Tank Internal & External Piping, Pressure Vessels, Fabrication & Welding, Fabrication & Installation, Pipelines & Fabrication, Cutting & Welding Equipment, Welding Procedures, Welding Qualification Testing, Welder Training Testing Program, NDT Inspection, Thermal Corner Protection Plate (TCPP), WPS/PQR's for Welding of Nickel, Inconel, Duplex & Super Duplex Stainless Steels, Painting & Insulation.

Chemflake Application, Inspection of Coatings, Hydrostatic Pressure Testing of Piping Systems, Hydrotest & Pneumatic Testing, Construction Manager, Construction Inspection & Reporting, Value Engineering in Construction Projects, Steel Structure Design & Construction, Advanced Materials for Construction, Advanced Building Construction, Construction Planning Methods & Management, Temporary Structures in Construction, Construction of Precast Concrete Buildings, Building Construction, Predictive Maintenance in Construction, Construction Safety, Engineering Resources and Construction for Oil & Gas Projects, Testing of Concrete Samples, Concrete Coated Line Pipe, Commissioning of HVAC, Pipeline Projects, Piping & Flanges, Gas Turbine, Radiographic Interpretation and has detailed knowledge of Codes EN 13420-API 650/API 1104, API 6A/API 17D/API 650/DNV/ANSI B31.3/ANSI B31.3/ASMĚ V, ASME IIX-IX/DNV OS F 101/NACE/ASTM/AWS D1.1/ISO 9001/14001 18001 & ISO 13628-5 Umbilical's and NoBo, Apragaz to ensure compliance with ATEX, PED, Codes & Regulations. Further, he is also well-versed in Commissioning Systems, Pre-Commissioning & Commissioning of Large Oil & Gas Projects, Refinery Shutdowns & Turnarounds, LNG/LPG Storage Tanks, Wastewater Treatment Containment Tank, Electrical & Instrumentation Systems & Subsystems, Power Stations, Power Distribution, Earthing Connections, Mechanical Completion, Site Civil Works, Fire Protection Systems, Passive Fire Protection (PFP), Project Turnover Packages, Safety Culture, Safety Management, Confined Space, First Aid, Safety in the Workplace, Fire Fighting Awareness, Asbestos Awareness, Behavioural Based Safety, Manual Handling & Working at Height, OHSAS 18001, ISO 14001 and ISO 9001 Quality Management Systems (QMS).

During his career life, Mr. Davies has held prime positions and has worked for international companies such as the Construction QAQC Manager, Welding & NDT Specialist, Painting & Insulation Specialist, Client Quality & Pre-Commissioning Manager, Site Quality Manager, Client Quality and Pre-Commissioning Manager, QA/QC Manager, Welding Engineer, Construction Engineer, QA/QC Lead/Quality Team Leader and Senior Instructor/Trainer from various international companies like the Statoil PROCOSYS MCCR, Project Power UK., Arcelormittal-C Shift Carbon Capture Project, Belguim Zeebrugge LNG Terminal, Petrofac/ROO Project, Chevron Gorgon Upstream JV, Saipem UK/Statoil, British Gas Hasdrubal Pipeline Project, Tunisia & BP PX2 Chemical Plant, Exxon and Total Antwerp.

Mr. Davies is a Member of Chartered Institute of Building (Eq. MSc. Hons Degree) and has Diploma of NVQ Level 6 Construction Site Management (Eq. BSc. Hons Degree). Further, he is an IIW Certified International Welding Inspector, a CSWIP Senior Inspector Welding 3.2, a CSWIP Radiographic Interpreter, a British Gas/CSWIP Senior Pipeline Inspector 1, a Certified RT Level III (Radiography Interpretation), a Certified ASNT Level II (RT, MT, PT, UT), an EWF Diploma European Welding Inspection Specialist, a Member of North American Corrosion Engineers (NACE), American Society for Quality (ASQ) and American Welding Society (AWS) and has further delivered numerous trainings, courses, seminars, conferences and workshops internationally.

#### **Accommodation**

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.



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#### Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-ofthe-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

#### Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1:	Sunday, 20 <sup>th</sup> of October 2024
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0930	Professional Practice
	Construction Management Profession and Certification • Code of Ethics •
	Essential Definitions
0930 - 0945	Break
	Professional Practice (cont'd)
0945 - 1100	Legal Relationships • CM Fee Structures • Enforcement of Terms &
	Conditions of CM Agreements and Laws
	Program Management (cont'd)
1100 – 1230	Program Management Defined • Pre-Design Phase: Program Development •
	Design Phase
1230 – 1245	Break
1245 - 1420	Program Management
	Procurement and Construction Phase • Post Construction Phase
1420 - 1430	Recap
	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Topics that were Discussed Today and Advise Them of the Topics to be Discussed
	Tomorrow
1430	Lunch & End of Day One

Day 2:	Monday, 21 <sup>st</sup> of October 2024
0730 - 0930	Project Management         Project Management Definitions, Functions, and Focus <ul> <li>Goals, Philosophies, and Concents</li> <li>Key Functions of the Project Manager</li> </ul>
0930 - 0945	Break
0945 - 1100	Project Management (cont'd)           Project Management Tools         Project Management Services by Phase



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1100 – 1230	Contract Administration Delivery and Procurement Methods
1230 - 1245	Break
1245 – 1420	<i>Contract Administration (cont'd)</i> <i>Contract Forms and Terms</i> • <i>Contract Administration through Project Phases</i>
1420 - 1430	<b>Recap</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3:	Tuesday, 22 <sup>nd</sup> of October 2024
0730 - 0930	Time Management & Time Management Lab
	Time Management Overview • CPM Building Blocks • Calculate the CPM
	Schedule
0930 - 0945	Break
0945 - 1100	Time Management & Time Management Lab (cont'd)
	Scheduling by Project Phase • Time Impact on the Schedule • Time
	Management Calculation Activities
1100 1220	Building Information Modeling (BIM)
1100 - 1230	Introduction to BIM and Common Applications
1230 – 1245	Break
1245 - 1420	Building Information Modeling (BIM) (cont'd)
	BIM and the Role of the CM • BIM by Project Phase
1420 - 1430	Recap
	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Topics that were Discussed Today and Advise Them of the Topics to be Discussed
	Tomorrow
1430	Lunch & End of Day Three

Day 4:	Wednesday, 23 <sup>rd</sup> of October 2024
0730 - 0930	Quality Management
	Terms and Definitions • Quality Management Plans
0930 - 0945	Break
0945 - 1100	Quality Management (cont'd)
	Quality Management by Construction Phase
	Sustainability
1100 – 1230	Sustainability Goals, Objectives, and Requirements • The CMs Role in
	Sustainability
1230 - 1245	Break
	Sustainability (cont'd)
1245 - 1420	<i>Tools for Sustainable Construction Management</i> • <i>Sustainability by Construction</i>
	Phase
1420 - 1430	Recap
	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Topics that were Discussed Today and Advise Them of the Topics to be Discussed
	Tomorrow
1430	Lunch & End of Day Four



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Day 5:	Thursday, 24 <sup>th</sup> of October 2024
	Cost Management & Value Engineering
0730 - 0930	Cost Management Overview • Preliminary Budgeting • Cost Management
	System
0930 - 0945	Break
0945 - 1100	Cost Management & Value Engineering (cont'd)
	<i>Cost Estimating</i> • <i>Cost Management by Project Phase</i> • <i>Value Engineering</i>
	Safety & Risk Management
1100 – 1230	Project Safety • OSHA Requirements and Liability • CM's Roles and
	Responsibilities
1230 - 1245	Break
	Safety & Risk Management (cont'd)
1245 – 1420	Project Safety Plan Implementation • Lessons Learned in the Field • Risk
	Management
1345 - 1400	Course Conclusion
	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Course Topics that were Covered During the Course
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

## MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each participant will be given a username and password to log in Haward's Portal for the MOCK exam during the 30 days following the course completion. Each participant has only one trial for the MOCK exam within this 30-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.



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# <u>Book(s)</u>

As part of the course kit, the following e-book will be given to all participants:



# Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the "Mindview Software" and "MS Project".







Course Coordinator Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org





