



COURSE OVERVIEW SE0009
Certified Construction Manager (CCM)
(CMAA-CCM Exam Preparation Training)

Course Title

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

Course Date/Venue

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

Course Reference

SE0009

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

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.





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



- 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 "Howard Smart Training Kit" (H-STK®). The H-STK® 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.

4yr AEC Degree	+	4yr RIC	=	✓ ELIGIBLE
2yr AEC Degree + 4yr Field Experience	+	4yr RIC	=	✓ ELIGIBLE
8yr Field Experience or CACM	+	4yr RIC	=	✓ ELIGIBLE
4yr non-AEC Degree	+	6yr RIC	=	✓ ELIGIBLE
No CACM & No Degree	+	8yr RIC	=	✓ ELIGIBLE

*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.

Accommodation

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



CMAA-CCM Certificate(s)

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.

CEU Official Transcript of Records

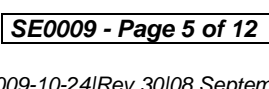
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Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
SE0009	Certified Construction Manager (CCM) (CMAA Exam Preparation Training)	November 10-14, 2023	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date: 3.0

TRUE COPY
Jaryl Castillo
Academic Director

Harvard Technology is accredited by:



Certificate Accreditations


Certificates are accredited by the following international accreditation organizations:-

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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.

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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® (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**.



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. Chris Mathews is a **Senior Civil Engineer** with over **45 years** of extensive **Onshore & Offshore** experience within the **Oil & Gas, Petroleum and Refinery** industries. His expertise widely covers in the areas of **Structural Engineering, Concrete Technology, Concrete Structural Design, Concrete Maintenance & Reliability Analysis, Structural Reliability Analysis, Civil Engineering Design, Architectural Engineering, Petrochemical Plant Structure Design & Remediation, Dynamic Analysis of Rotating Equipment, Foundations & Structural Steel Piperacks, Concrete & Structural Steel Design, Steel Structure Design, Elements of Applied Civil Engineering, Civil Building Maintenance, Building Construction Technology, Advanced Building Construction Technology, Structural Engineering Techniques, Structural Renovation of Buildings,**

Earthwork & Structural Maintenance, Building Envelopes & Finishes, Landscaping & Roofing System, Seismic Design for Buildings, Advanced Seismic & Wind Design of Reinforced Concrete, Durability of Reinforced Concrete Structures, Structural Systems & Components, Design of Concrete Columns & Beam Frames, Sloping, Benching, Embankments & Bundwalls, Design of Foundations & Equipment Footings, Earthwork & Structural Maintenance, Infrastructures, Waterfront Structures, Coastal Protection & Bridges, Maintenance of Concrete Structures, Structural Reliability Assessment, Inspection, Assessment & Repair of Concrete Structure, Codes & Structural Reliability, Probabilistic Evaluation of Existing Structures, Structural & Precast Concrete, Road Construction Materials & Construction Technologies, Drainage Inspection, Modelling & Management Systems, Design & Details of Drainage System, Surface Drainage, Road Maintenance & Rehabilitation, Roadwork Supervising & Monitoring Skills, Road Safety, Road Inspection, Road Design Skills, Geometric Design of Urban & Rural Road, Advanced Highway Design, Backfilling & Asphaltting, Advanced Asphalt Paving Installation, Asphalt Hot Mix, Concrete Mixing & Testing, AutoCad Civil 3D, Land Surveying & GPS, Survey Techniques, Surveying in Engineering Projects, Sewerage System, Quantity Survey, Topographic Survey, Survey of Water Pipeline Network, Operational Problems of Water Distribution Network, Pump Station Technology, Sewer Pipeline & Manhole Defects, Geographical Information System (GIS), Soil Geotechnical Analysis, Investigations, Pile Design & Soil Improvement, Data Analysis Techniques, Applied Groundwater Modeling, Mapping Information Management Systems, Civil Engineering Drawings, Standards & Codes, Flow Diagram & Control System Fundamentals (PID, PFD), P&ID Reading, Interpretation & Developing, Piping & Instrument Drawing, Construction Materials, Probability & Statistics Engineering and Site Management Safety Training Scheme (SMSTS). He is currently the **Engineering, Procurement & Construction Technical Director wherein he is responsible in reviewing, checking, verifying design studies and approving direct contractual construction material requirements.**

During his career life, Mr. Chris has gained his practical and field experience through his various significant positions and dedication as the **President & Managing Director, Projects & Technical Director, Technical Director, Technical Interface Senior Manager, Underground Structure Senior Manager, Technical Interface Manager, Design Manager, Deputy Design Manager, Project Scheduling Manager, Engineering Manager, Project Manager, Strategic Program Manager, Structures Senior Manager, Team Leader, Resident Engineer, Supervising Resident Engineer, Railway Engineer, Supervisor, Construction Engineer, Consortium Engineer, Assistant Resident Engineer, Field Engineer, Construction Supervisor/Representative, Team Leader and Senior Instructor/Trainer** for various international companies and projects like the **Engineering Procurement Construction (EPC), Cairo Monorails Consortium Engineering, SOGEA-ETF, Mass Public Transport Expert, Tororo-Gulu Railway Line-Consultancy Services, Dubai Government Roads & Transport Authority (RTA), Qatar Railway Co., PARSONS Rail & Transit Division, Parsons Siemens, ALSTOM Transport-SA, OMOG Ltd., ASPROFOS-SA, ADK-SA, DENCO Ltd., REDEC Ltd., INGECO Ltd., BECHTEL-SA and PETROLA International-SA.**

Mr. Chris is a **Registered Professional Civil Engineer** and holds a **Diploma in Civil Engineering** from the **National Technical University of Athens, Greece**. Further, he is a **Certified Instructor/Trainer**, a member of the **Olympic Metro Consortium Engineering and Athens Suburban Railway Joint Venture** and has further delivered numerous courses, trainings, conferences, seminars and workshops internationally.



Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-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, 20th 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
0945 – 1100	Professional Practice (cont'd) Legal Relationships • CM Fee Structures • Enforcement of Terms & Conditions of CM Agreements and Laws
1100 – 1230	Program Management (cont'd) 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, 21st of October 2024

0730 – 0930	Project Management Project Management Definitions, Functions, and Focus • Goals, Philosophies, and Concepts • Key Functions of the Project Manager
0930 – 0945	Break
0945 – 1100	Project Management (cont'd) Project Management Tools • Project Management Services by Phase



1100 – 1230	Contract Administration Delivery and Procurement Methods
1230 – 1245	Break
1245 – 1420	Contract Administration (cont'd) Contract Forms and Terms • Contract Administration through Project Phases
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 Two

Day 3: Tuesday, 22nd 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 – 1230	Building Information Modeling (BIM) 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, 23rd 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
1100 – 1230	Sustainability Sustainability Goals, Objectives, and Requirements • The CMs Role in Sustainability
1230 – 1245	Break
1245 – 1420	Sustainability (cont'd) Tools for Sustainable Construction Management • Sustainability by 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 Four





Day 5: Thursday, 24th of October 2024

0730 – 0930	Cost Management & Value Engineering Cost Management Overview • Preliminary Budgeting • Cost Management System
0930 – 0945	Break
0945 – 1100	Cost Management & Value Engineering (cont'd) Cost Estimating • Cost Management by Project Phase • Value Engineering
1100 – 1230	Safety & Risk Management Project Safety • OSHA Requirements and Liability • CM's Roles and Responsibilities
1230 – 1245	Break
1245 – 1420	Safety & Risk Management (cont'd) 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

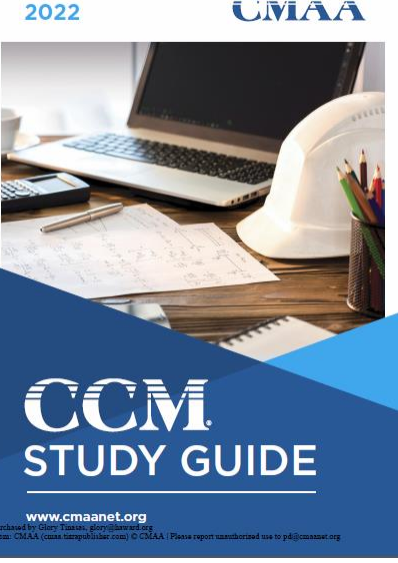
MOCK Exam

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.



Book(s)

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



Title : CCM STUDY GUIDE 2022
ISBN : 978-1-958976-02-9
Author: CMAA: Construction Management Association of America

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”.



Mindview Software



Course Coordinator

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

