

Construction Site Management

Module Descriptor

Module Code: SMA5CSM

Version: 6.00

Status: Final

Date: 15/09/2022

Summary Module Details

Module details

Module Title: Construction Site Management

Module Leader: Rob Otter

Module Mode: Supported online learning

Semester: Autumn (UK)

Level: 5

Credits: 20

Learning Hours: 200

Contact and Study Hours:

Directed Study Time: 90 hrs (45%)

Self-directed Study Time: 50 hrs (25%)

Assessment Study Time: 60 hrs (30%)

Assessment Type:

Coursework: 100%

Computer Marked Assessment: 0%

Self-directed Research Project: 0%

Portfolio: 0%

Module Summary

This module aims to develop understanding of, and practice the skills associated with, managing, planning and controlling the production of building. This module is seen as the focus for the construction manager at Level 5 in developing the skills directly related to the construction process. It will allow the student to develop the management theory of earlier modules with the practical aspects of site management. The module will relate to construction site management within the global arena and is not intended to be country-specific. Students will be encouraged to identify with their own working environment.

Taken on which Programmes

BSc (Hons) Construction Management (C)

Core (C) or Elective (E)

Module Aims

This module aims to:

- Develop managerial skills at site level, with regard to personnel, plant and materials;
- Utilise research and theory, and explore the practice of these in relation to site-based scenarios, problem-solving issues;
- Link the overall needs of the construction organisation with those of the individual construction site;
- Establish the learning experience within the context of construction application, thus enabling the integration of theoretical knowledge and understanding with best industrial practice, including health, safety and welfare, and environmental sustainability.

Module Learning Outcomes

- LO1 Examine the managerial skills required to manage, plan and control a construction site.
- LO2 Explain how relevant scientific principles, construction techniques and sustainability relate to building design and performance.
- LO3 Calculate and process information, integrate theory and practice, define and solve problems and communicate solutions effectively.
- LO4 Apply the skills of effective construction site management: planning, application of regulations, management of quality assurance and risk processes, and management of the construction process.

Indicative Module Content

Module topics

- **The construction site**
The construction site set up, site accommodation, site administration, welfare facilities, site security methods to keep the site and its personnel secure.
- **The roles of personnel**
The roles of personnel directly associated with the construction site; client, architect, quantity surveyor, engineers, the building contractor's team, environmental health officer, project manager and site manager comparison, public liaison.
- **The environment**
Environmental issues; construction and its effect on wildlife. Pollution and conservation. Waste and the control of waste on construction sites, environmental management policies. Sustainable construction.

Construction Site Management

- **Site management**

Managers and leaders, leadership theories, problem solving and decision making. Webcams and construction. The site manager and stress. The site manager and a sustainable approach to construction.

- **Communication**

Site information flow, consultant co-ordination. The art of communication, communication by writing and speaking, developing communication skills. Site meetings; planning and chairing meetings, the dos and don'ts of meetings. Negotiation, the principles of negotiation, negotiation skills.

- **Planning and programming**

Producing a network diagram, determination of the critical path, preparation of resource histograms, resource levelling, precedence networks, bar charts. Project management software.

- **Method statements/risk assessment**

The purpose of method statements, the types of method statements, Health and Safety method statements (a contractors' guide). Risk assessment, what is risk assessment, general legal requirements, the risk assessment process. Risk assessment and the Construction (Design and Management) Regulations (CDM) 2015. Specific risk assessments.

- **Health and safety management**

The management of health and safety, health and safety on site, CDM 2015, health and safety hazards to site employees, visitors and the public. Safety management.

- **Resource management**

Utilisation of construction plant, materials, site factors influencing the selection of plant and materials. Utilisation of labour, the timing of operations.

- **Quality assurance**

Quality on site, total quality management. Barriers to effective TQM. How the TQM approach is implemented in practice.

- **Personnel management**

Industrial relations, grievance and discipline. Construction training: construction skills, grants and levies, NVQ's, OSAT. Equal opportunities in training, future skills training. Recruitment: external labour markets, recruiting site personnel.

- **Incentives**

Incentives schemes for managers, incentive schemes for operatives, incentive bonus schemes. Incentives and motivation.

- **Method study**

A systematic approach to method study, techniques used in work study; flow diagrams, string diagrams, multiple activity process charts. Work measurement, time study.

Construction Site Management

- **Cost control**

Construction site cost control; fixed costs and variable costs, cash flow, cash flow forecasting, budgeting. Cost centres, project finance.

- **Lean construction**

Concept of lean thinking, implementing lean construction internationally, increasing productivity, value management. Critical success factors for project management; partnering, change culture. Modern Methods of Construction (MMC). Sustainability.

This content will be reviewed and updated regularly to reflect the legal, moral and financial changes in professional standards and practice.

Overview of Summative Assessment

Module learning outcomes	Assessment	Word count or equivalent	Weighting
LO1, LO2, LO3, LO4	Assessment 1 Coursework	1,600	40%
LO1, LO2, LO3, LO4	Assessment 2 Coursework	2,400	60%

Module Pass Mark (as a weighted average of all assessments): 40%

Key Module Learning Resources

Core Sources and Texts

The core reading resources within each module will be provided via the specific Virtual Learning Environment (VLE) module pages and within the e-Library. Additional reference material and supplementary resources to support your studies are available through the UCEM e-Library.

Module tools

Students will have access to study materials, dedicated academic support, student forums, and learning activities via an online learning platform (VLE).

The module page on the VLE is broken down into structured study weeks to help students plan their time, with each week containing a mixture of reading, case studies, videos/recordings and interactive activities to go through. Online webinars/seminars led by the Module Leader can be attended in real time and provide opportunities to consolidate knowledge, ask questions, discuss topics and work through learning activities together. These sessions are recorded to support students who cannot attend and to enable students to recap the session and work through it at their own pace. Module forums on the VLE provide further opportunities to discuss topics with other students, complete collaborative work and get extra help from the module team.

Professional online resources

The e-Library provides access to trusted, quality online resources, selected by subject specialists, to support students' study. This includes journals, industry publications, magazines, academic books and a dissertation/work-based library. For a list of the key industry specific and education resources available please visit [the VLE e-Library](#).

Other relevant resources

Access is also provided to further information sources that include the British Library and Open University UK catalogues, as well as providing a monthly current awareness service entitled, **Knowledge Foundations** - a compendium of news, research and resources relating to the educational sector and the Built Environment.

The module resource list is available on the module website and is updated regularly to ensure materials are relevant and current.