College of Contract Management
United Kingdom

Postgraduate

Advanced Diploma in **Professional Practice in Contract Management**

Syllabus

Contents

1. Course Structure and Rules of Combination

1.1 Rationale

The Postgraduate Advanced Diploma in Professional Practice in Contract Management course will give students the skills they need to start their career in Contract Management. They will build the competencies they need to become, for example, a Contract Manager, Project Manager, Claims Consultant or Project Controls Engineer. This course is specifically designed for construction professionals working in managerial positions, such as Contract, Commercial or Project Managers. It is also tailored towards Quantity Surveyors, Civil Engineers and Lawyers working in construction or the oil and gas industry.

Specifically, the course content provides students with a thorough knowledge, understanding and skillset specifying in contract management. This will help them to work as a successful contract management professional with the skills to maximise the profit for the companies they work for or with.

Expert lecturers, with decades of experience, deliver informative theoretical knowledge and provide practical learning examples based on their extensive professional experience. This course has been designed to deliver education that not only furthers your understanding but demonstrates how this knowledge can be applied in practice. Learners will gain an understanding of real world challenges the industry professionals face and will become equipped with the right skills to navigate and overcome them.

1.2 Career Progression

The course provides the underpinning knowledge and understanding for the Postgraduate Advanced Diploma in Professional Practice in Contract Management. It also enables students to study towards a university degree. Upon successful completion they can become Associate Member of the Chartered Institute of Arbitrators (ACIArb) in the UK.

1.3 Course Rules of Combination

The course can be completed in 8 months (approximately 32 weeks), and includes an assessment at the end of each module. Modules CM210-CM330 are each worth 6 credits, whilst CM340 is worth 8 credits.

- CM210 Contract Structure and Documentation
- CM220 Construction Financial Management and Procurement
- CM230 Construction Law
- CM240 Construction Site Operations
- CM310 Forms of Contract
- CM320 Construction Claims
- CM330 Construction Planning and Scheduling
- CM340 Construction Alternative Dispute Resolution

To achieve the Advanced Diploma, candidates are required to complete all modules and pass their respective final assessments.

1.4 Entry Requirements

Applicants must be a minimum 18 years old and are expected to be able to demonstrate English language comprehension **and** one of the following:

- Bachelor's Degree in Quantity Surveying/Engineering/Management/Law/any Construction Studies.
- NVQ Level 6 and a minimum of 2 years' work experience in construction projects.
- Diploma (Level 4 or 5) and minimum 5 years' managerial experience.

1.5 Module and Assessment Grades

The Assessor will award a grade for the achievement of each module (Fail, Pass, Merit or Distinction). Grades apply to overall performance in modules and assessments.

Indicative marking descriptors for differentiating between levels of achievement when marking assessments are provided below (Section 1.8).The candidate can obtain maximum one-module exemption according to our RPL policy.

The overall grade for a qualification is calculated using a points system. Each module grade attracts points as follows:

Fail	0 points
Pass	1 point
Merit	2 points
Distinction	3 points
Module Exemption	1 point

1.6 Assessment

The assessment process is set by the College of Contract Management, defining the requirements learners are expected to meet in order to demonstrate that a learning outcome has been achieved. All learning outcomes must be achieved in order to gain attainment of credit for that module.

All completed assessments are marked and verified internally, and are subject to approval by our partner universities or awarding bodies.

The assessment criteria are based on 3 areas:

1. **Task Achievement** - This is a measure of how well the candidate answers the question/ questions and can identify the important aspects of the task.
2. **Technical Content** - — This is a measure of how well the candidate identifies, describes and evaluates the technical aspects of the task.
3. **Presentation** - This is a measure of how well the candidate presents the assessment, including the quality of the structure and paragraphing, the quality and relevance of visual or graphical content and the referencing used for quoted sources.

1.7 Assessment Policies

1. All submission of assessments must include:
   a. a copy of the full brief given by the Examinations Officer or Course Administrator;
   b. all source material must be cited in the text and a full bibliography of source material (including author, title, publisher, edition and page) listed at the end of the submission.
2. All submissions must be submitted into our system as instructed by the Examination Officer or Course Administrator.
3. All submissions under the student's name must only be the work of that student. All information sources must be acknowledged. There is the **possibility of failing the modules if the content of the assessment are deemed be plagiarised** as set out in the rules and regulations of the College.
4. All submissions should be in pdf format (unless software files are specified) and students must keep a copy of all submitted work for reference purposes. Receipt will be acknowledged by the College once the work is submitted via our online exam portal.
5. Whenever a candidate submits work after the approved deadline without an authorised extension, a maximum "Pass" grade will be awarded.
6. The Assessor will comment on the quality of the work for learning purposes.
7. Application for an extension must be requested prior to the submission deadline. Submissions must be made on the exam portal for each module extension request. A primary extension (two weeks) request can be made without the submission of any evidence or reasoning, any further extension requests will require submission of supporting documentation. All requests must be addressed to the Examination Officer or Course Administrator.

1.8 Indicative Marking Descriptors

Note: Please note that the bands below describe indicative characteristics only. An overall holistic approach is required when assessing a candidate's work and assigning a grade. Please read these grading bands in conjunction with the College of Contract Management Assignment Policy.

These descriptors apply to all modules except CM340

Grade	Task Achievement - The Relevance of the Response	Inclusion of Relevant Technical Knowledge in Content	Presentation/Coherence
Distinction			
70%+	The work demonstrates a comprehensive understanding of the task. All relevant information is included and the main issues are effectively identified and analysed. There is evaluation and analysis of solutions to any issues relevant to the task. The response shows control of content within the word count.	The work demonstrates a strong understanding of a wide range of technical issues relevant to the task. There is analysis of the advantages/disadvantages of any possible choices, risks and potential outcomes.	The work is appropriately structured and the argument is developed coherently. There is a recognised form of source referencing which supports the points made in the task. Paragraphing and titling are used effectively to assist the reader and the use of visual/graphical information is clear and effective. The graphical information is relevant to the task and is accurate.
Merit			
60-69%	The work demonstrates a clear understanding of the main issues relevant to the task and the issues are explained effectively and any potential solutions are identified. There is an attempt to analyse the merits of the solutions proposed. The task is broadly achieved within the word count and relevant to the assignment.	The work demonstrates an understanding of the key technical issues of the task. There is clear description of relevant technical aspects with some attempt to evaluate the merits of their solutions relating to the set task.	Demonstrates an awareness of presentation and an attempt to present the information with clarity and coherence. There is referencing to any sources used and the paragraphing and titling assists the reader. Clear graphical information supports their assignment and it has broad relevance to the task but, there might be some inaccuracies/omissions in their overall submission.
Pass			
40-59%	The work demonstrates an understanding of the task and the main points of the task are identified. There is no attempt to evaluate or analyse their solutions and there may be some inaccuracies, omissions and irrelevant content within their submission. There may be lack of control in relation to the word count.	The work identifies the main technical issues and demonstrates an understanding of these. Their submission may be limited to a description with little evidence of any evaluation. There may be some omissions and inaccuracies in the detail and there may be some irrelevant information.	There is an attempt to structure the information and evidence of paragraphing and titling has been made but it is not always appropriate. Some basic graphical information may be included which is of some assistance to the reader. There may be some omissions or inaccuracies in their submission and the work is generally coherent however, there may be occasional lapses in coherence and overall structure.
Fail			
0-39%	The work shows a poor understanding of the subject, with frequent inaccuracies and it fails to identify important aspects of the task. Much of the information provided is irrelevant to the task and there may be evidence of copying and pasting from external sources. The response may be limited to lists of words with no attempt to explain the relevance/merits of these to the task set and the assignment falls short of the word count.	The work demonstrates a lack of understanding of the technical aspects and there are omissions of important technical information. Errors are evident in the technical content and there has been no attempt to explain the relevance of the technical content to the task.	The assignment lacks structure and may be limited to lists of points which are not developed, it is also disorganised in structure which makes it difficult for the reader to understand the points being made. The submission is illegible or incoherent in places with no referencing of any external sources used. The graphical illustrations are of poor quality or are absent and they may be irrelevant to the task set. There may be errors and a lack of clarity causing difficulty for the reader to understand.

1.8 Indicative Marking Descriptors

Note: Please note that the bands below describe indicative characteristics only. An overall holistic approach is required when assessing a candidate's work and assigning a grade. Please read these grading bands in conjunction with the College of Contract Management Assignment Policy.

These descriptors apply only to module CM340

Grade	Task Achievement - The Relevance of the Response	Inclusion of Relevant Technical Knowledge in Content	Presentation/Coherence
Distinction			
80%+	The work demonstrates a comprehensive understanding of the task. All relevant information is included and the main issues are effectively identified and analysed. There is evaluation and analysis of solutions to any issues relevant to the task. The response shows control of content within the word count.	The work demonstrates a strong understanding of a wide range of technical issues relevant to the task. There is analysis of the advantages/disadvantages of any possible choices, risks and potential outcomes.	The work is appropriately structured and the argument is developed coherently. There is a recognised form of source referencing which supports the points made in the task. Paragraphing and titling are used effectively to assist the reader and the use of visual/graphical information is clear and effective. The graphical information is relevant to the task and is accurate.
Merit			
65-79%	The work demonstrates a clear understanding of the main issues relevant to the task and the issues are explained effectively and any potential solutions are identified. There is an attempt to analyse the merits of the solutions proposed. The task is broadly achieved within the word count and relevant to the assignment.	The work demonstrates an understanding of the key technical issues of the task. There is clear description of relevant technical aspects with some attempt to evaluate the merits of their solutions relating to the set task.	Demonstrates an awareness of presentation and an attempt to present the information with clarity and coherence. There is referencing to any sources used and the paragraphing and titling assists the reader. Clear graphical information supports their assignment and it has broad relevance to the task but, there might be some inaccuracies/omissions in their overall submission.
Pass			
55-64%	The work demonstrates an understanding of the task and the main points of the task are identified. There is no attempt to evaluate or analyse their solutions and there may be some inaccuracies, omissions and irrelevant content within their submission. There may be lack of control in relation to the word count.	The work identifies the main technical issues and demonstrates an understanding of these. Their submission may be limited to a description with little evidence of any evaluation. There may be some omissions and inaccuracies in the detail and there may be some irrelevant information.	There is an attempt to structure the information and evidence of paragraphing and titling has been made but it is not always appropriate. Some basic graphical information may be included which is of some assistance to the reader. There may be some omissions or inaccuracies in their submission and the work is generally coherent however, there may be occasional lapses in coherence and overall structure.
Fail			
0-54%	The work shows a poor understanding of the subject, with frequent inaccuracies and it fails to identify important aspects of the task. Much of the information provided is irrelevant to the task and there may be evidence of copying and pasting from external sources. The response may be limited to lists of words with no attempt to explain the relevance/merits of these to the task set and the assignment falls short of the word count.	The work demonstrates a lack of understanding of the technical aspects and there are omissions of important technical information. Errors are evident in the technical content and there has been no attempt to explain the relevance of the technical content to the task.	The assignment lacks structure and may be limited to lists of points which are not developed, it is also disorganised in structure which makes it difficult for the reader to understand the points being made. The submission is illegible or incoherent in places with no referencing of any external sources used. The graphical illustrations are of poor quality or are absent and they may be irrelevant to the task set. There may be errors and a lack of clarity causing difficulty for the reader to understand.

1.9 Calculating Overall Qualification Grade

To calculate the overall qualification grade, the individual module grades should be added together and compared to the table below:

Candidates must pass all 8 modules of the course.

Total Points for all 8 Modules	Overall Grade
24	**Distinction**
23	
22	
21	
20	
19	**Merit**
18	
17	
16	
15	
14	
13	**Pass**
12	
11	
10	
9	
8	
7 or fewer	**Fail**
Candidates must achieve at least a pass in (or hold exemption from) all 8 modules to be awarded the Advanced Certificate.	

1.10 Mandatory Modules

Module Reference	Title	GLH	Credit Value
CM210	Contract Structure and Documentation	60	6
CM220	Construction Financial Management and Procurement	60	6
CM230	Construction Law	60	6
CM240	Construction Site Operations	60	6
CM310	Forms of Contract	60	6
CM320	Construction Claims	60	6
CM330	Construction Planning and Scheduling	60	6
CM340	Construction Alternative Disputes Resolution	80	8

CM210: Contract Structure and Documentation	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Advise on contractual matters and able to prepare documents and correspondence. 2. Demonstrate an understanding of the principles and process of formation of construction contracts and describe the importance of contractual documents. 3. Understand the sound grasp of the principles of learning and development and understanding the importance of the learning process for oneself and others. 4. Manage project documentation to assess the merit of claim and manage disputes. 5. Implement procedures for adequate record keeping. 6. Manage proper contract administration during projects.
Indicative Content	
Demonstrate Fundamental of Contract Structure:	Standard forms of applications, Requirements in the Contract, Content of Contracts, Forms of Agreement, Conditions of Contract, Applications (Turnkey, Engineering, Procurement and Construction (EPC)), Works Designed by Employer (Procure & Construction), Shared employer and contractor risks.
Assess Pre-Contract Structure:	Document Precedence, Key Clauses, Payment Methods, Sharing risk and responsibilities on payment method, Pre-Contract Documentation, Preliminary enquiry, Errors in tender documents, Letters of intent, Performance bonds.
Evaluate Post-Contract Structure:	Post Contract Documentation: (Pre-commencement meeting), Site and progress meetings, Site diaries, The master programme, Discrepancies in documents, Compliance with Statutory requirements, Variations, Documentation process, Elements of project documentation, Accurate records, Electronic records keeping, Documentation related to the project relationship, Elements of log.
Manage Site Documentation:	Project Documentation from the Site, Site Manager's record of daily activities, (Workers/Labourers, Testing Delivery of materials Records on temporary suspension of work or time, Resumption of work, Daily time charges, Health and safety, Photographs), Documentation to the subcontractors (Common issues with sub-contracting, Lack of adequate manpower, Delays in submitting shop drawings, Delaying materials, Payment issues, Lower bid sub-contractors), Construction insurance and bonds, Workers compensation insurance, Indemnity and insurance, Some general principles of insurance, Professional indemnity insurance, Surety bonds, Bid bonds, Performance bond, Labour and material bond, Subcontractor bonds, Lien bond.

Process Contract Documentation and Administration:	Important documents (Shop drawings, RFI and RFC, Site conditions documentation, Cost proposal or cost estimate requests), Conditions that impact completion time (Alternation, Unforeseen subsurface or unusual conditions, Claims or dispute resolution, Monthly requisitions, Document of close-out), Important elements of contract administration (Contact details, Notice provisions, Time provisions in accordance with FIDIC (Construction — P&DB — EPCT) ,Scheduling meetings, Record keeping), Documentation management (Contract register, Electronic systems, Progress records, Cost records, Records/minutes of meeting, Correspondences, Site diaries), Contractual entitlements.
Supply Correspondences and Contractual Terms:	Sample correspondences and terms.

Recommended Reading

1. Birchal, S., Griffiths, P. and Ramus, J.W. (1998) *Contract Practice for Surveyors*. 3rd ed. Oxford: Butterworth-Heinemann.
2. Kwakye, A.A. (1994) *Understanding Tendering & Estimating.* Great Britain: Gower Publishing Company.
3. Smith, A.J. (1995) *Estimating, Tendering & Bidding for Construction.* London: Macmillan.
4. Brooks, D. 'Does public accountability achieve value for money', *Building Technology and Management*, March, pp. 42-86.
5. Groaks, J. and Householder, J. 'Contractors uncertainty and client intervention', *Habitat Int*., 14, (2-3), pp. 12-89.

CM220: Construction Financial Management and Procurement	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Comprehend the development of a cost plan. 2. Identify and assess the basics of company accounts, including turnover, profit/loss, work in hand and cash flow. 3. Monitor internal accounting controls in construction companies. 4. Determine revenue recognition options for construction companies. 5. Demonstrate knowledge in the cost of a construction firm. 6. Examine sample report forms used throughout the project in order to demonstrate the need for meaningful cost control and analysis. 7. Analyse construction procurement strategies and be able to apply project management skills to a development project. 8. Identify basic cost flows and project budget. 9. Display awareness of the main procedures associated with the procurement, design and construction of building and civil engineering projects.
Indicative Content	
Determine Contractors Business:	The contractors business needs, Creation of clients, Profit making, Provision of good product, The contractors policy and marketing strategy, Level of turnover, Business finance, Type and number of projects, Organisation structure, Establishing market segment, Maintenance of reliable clients, Accurate estimates and successful tenders, Monitoring site operations, Site control, Cost analysis, Cost control, Reputation and quality of service.
Comprehend the Finance and Investment of Construction Projects:	Managing costs and profits, Managing cash flows, Construction accounting systems, General ledger, Method of accounting (Cash, Accrual, Percentage of completion, Final contract, The balance sheet), Assets (Cash, Accounts receivable, Inventory, Notes receivable, Prepaid expenses, Total current assets, Fixed assets, Accumulated depreciation, NET fixed assets, Total assets), Liabilities (Accounts payable, Notes payable, Accrued payables, Capital lease payable, Warranty reserves, Total current liabilities, Other current liabilities, Long-term liabilities, Total liabilities, Owner's equity, Balance sheet).

Support Resource Management:	Efficiency of capital, Cost of capital (Payments to shareholders, Payments to financial institutions, Payments for financial advice and services), Efficiency of labour, Increasing productivity, Cost of labour, Efficiency of plant, Plant utilization, Hiring and purchasing plant (Advantages, Disadvantages), Purchase of plant (Cost of transport, Cost of working base, Cost of fuel, Cost of operators), Materials (Good material, Quantity, Source of supply, Purchase price, Delivery to the right site, Time for delivery, Unloading and storage facilities, Method of incorporation, Waste factor, Subcontracting, Effects of subcontracting in the construction industry).
Analyse Costs of the Construction Firm:	Firm, Profit, Relationship between Output and Input, Short-Run Costs, Fixed Costs, Variable Costs, Short-Run Average Cost Curves, Average Fixed Costs (AFC), Average Variable Costs (AVC), Average Total Costs (ATC), Marginal Cost, Finding Minimum Costs.
Identify Procurement in Construction:	Procurement Methods (Traditional Method, Based on bills of firm quantities, Based on bills of approximate quantities, Based on drawings and specification, Based on a schedule of rates, Based on cost reimbursements, The composite nature of contracts, Circumstances in which the various types of contract may be used).

Recommended Reading

1. Seely, I.H. (1989) *Advanced Building Measurement.* Macmillan.
2. Pratt, D. (2011) *Estimating for Residential Construction.* 2nd ed. Cengage Learning
3. Ashworth, A. (2008) *Pre-contract Studies: Development Economics, Tendering, and Estimating.* 3rd ed. Oxford: Blackwell.
4. Ashworth, A., Higgs, C. and Hogg, K. (2013. *Willis's Practice and Procedure for the Quantity Surveyor.* 13th ed. Oxford: Blackwell.
5. Brook, M. (2008) *Estimating and Tendering for Construction Work.* Oxford: Butterworth-Heinemann.
6. Cartiledge, D. (2009) *Quantity Surveyor's Pocket Book.* Oxford: Butterworth-Heinemann.
7. Peterson, S. (2011) *Construction Accounting and Financial Management.* 3rd ed. Pearson.
8. Myers, D. (2022) *Construction Economics: A New Approach.* 5th ed. Routledge.

CM230: Construction Law	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Become familiar with construction contracts and responsibilities of contracting parties. 2. Interpret employment legislation and its applicability to construction projects. 3. Comprehend the principles of contract law and their application. 4. Demonstrate a basic knowledge of the nature and significance of law and legislation as applied to the construction process. 5. Display an understanding of the principles and process of formation of construction contracts and describe the importance of contractual documents. 6. Show evidence of a basic knowledge and understanding of the importance of ethics and conduct in professional practice. 7. Apply appropriate principles of construction management, law, and ethics. 8. Comprehend employment legislation and its applicability to construction projects.
Indicative Content	
Comprehend Law of Contract:	Nature of contract, Type of contract (Valid contracts, Voidable contracts, Void contracts or Void agreements, Unenforceable contracts), Executed and executory contracts, Courts system in England and Wales, Valid contract (Unilateral or bilateral contracts, Letter of intent).
Assess the Meaning of Construction Contracts:	Importance of a written contract (Clarity and certainty, Procedures, Risk allocation), Terms of a construction contract (Risk allocations and approaches, Role of participants).
Determine Contractual Terms:	What should a written construction contract cover (FIDIC contracts, Programme, Delays and extension of time, Delay damage, Tailoring the contract, Contractual terms, Representations and terms, Incorporation of express terms, Contract is in writing, Contract is signed, The importance of the statement), Classification of express terms (conditions, warranties, Innominate terms), Implied terms (terms implied in law, Customary implied terms, Statutory implied terms).
Management Acceptance:	Acceptance of conduct, Acceptance must be qualified, Acceptance of tenders, The battle of forms, Communication of acceptance (general rule).

Implement health and safety and employment regulations:	Employers liability for injuries to their employees, Health and safety work, Employer and employee, Health and safety regulations, Workplace (Health and Welfare) regulations, Rights and duties of the parties to the contract (duties of employer, duties of an employee) Vicarious liability, The course of employment.
Oversee completion:	Practical completion or substantial completion, Section completion and partial possession by the employer, Acceleration, Works programme.

Recommended Reading

1. Eggleston, B. (2008) *Liquidated Damages and Extensions of Time in Construction Contracts.* 3rd ed. Wiley-Blackwell. (pp. 86-120, 175-177, 188-196)
2. Godwin, W. (2013) *International Construction Contracts: A Handbook.* Wiley-Blackwell. (pp. 3-10)
3. Manson, K. (1994) *Law for Building Practitioners.* Batsford Ltd. (pp. 179-206)
4. Uff, J. (2021) *Construction Law.* 13th ed. Sweet & Maxwell.
5. Owen, S. (1998) *Law for the Construction Industry.* 2nd ed. Routeledge. (pp. 1-13, 47-48)
6. Chappell, D. (2011) *Building Contract Claims.* 5th ed. Wiley-Blackwell. (pp. 128-135)
7. Ellis, R. and Randolph Thomas, H. (2008) *Interpreting Construction Contracts.* American Society of Civil Engineers. (pp. 49-67)
8. Rowlinson, M. (2018) *A Practical Guide to the NEC4 Engineering and Construction Contracts.* Wiley-Blackwell.
9. Ashworth, A. (2011) *Contractual Procedures in the Construction Industry.* 4th ed. Oxford: Longman.
10. Hughes, W. and Murdoch, J. (2000) *Construction Contracts Law and Management.* 3rd ed. London: Span Press.
11. Owen, S. (1998) *Law for the Construction Industry.* 2nd ed. Harlow: Longman.

CM240: Construction Site Operations	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Manage proper site management and administration during projects. 2. Determine the factors affecting the space available. 3. Understand the equipment and machinery restrictions as well as material storage requirements. 4. Describe temporary facilities and auxiliary works. 5. Define worksite offices, service facilities and security at the site. 6. Recognise the importance of internal organisation of the construction project.
Indicative Content	
Oversee Management of Site:	Work programme, Works schedule, Daily Site Duties (Important elements of daily site duties (contact details, notice provisions, scheduling meetings, record keeping)), Communication (Advising on how to get to the site, Communicating with the general public, communication with the client and its representatives, Communicating to staff on site and in then Head Office, Electronic communication, Health and safety).
Navigate the Construction Site Layout:	Basic site types, Aspects needed for a good site layout, Analysing and designing work sites, Site layout planning elements (Safety, Site boundaries, Site accessibility, Design and location of temporary road, Information signs, Security, Accommodation, Offices, Water supply and sanitation, Material handling, Equipment, Storage and site cleaning, Craft change-houses, Batch plant and fabrication shops, Waste disposal), Managerial problems (Material stacks wrongly located, Plant and equipment wrongly located, Inadequate space allowed, Site huts wrongly located in relation to their effective use).
Determine Construction Site Layout:	Temporary facilities characteristics (Satisfying environmental and safety regulations, Availability of diverse solutions for the same problem, Relatively short life span of a specific location, Reutilisation with a minimum loss for the same or modified function at another location, Ease of assembly, Dismantling, Exploitation) Standardisation of design, Temporary facilities selection (Example of site layout planning (Criticism of existing site layout, Suggested improved layout)).

Manage and Oversee Health and Safety Regulations:	Key legislation and regulations for the construction industry (Health and safety at work, etc act 1974, Enforcement, CDM Co-ordinator, Principle contractor), Health and safety management systems and regulations (The Control Of Substances Hazardous to Health regulations (COSHH) 2002, Construction, Design and Management Regulations 2007, The Construction Health, Safety and Welfare Regulations 1996, The management of health and safety at work regulations 1999), Health and safety plan and process (Pre contracting stage, Construction stage), Other regulations (Provision and use of work equipment 1998 regulations (PUWER), Lifting operations and lifting equipment regulations 1998 (LOLER), Workplace (Health, Safety and Welfare) regulations 1992, Control of Substances Hazardous to Health regulations (COSHH), Control of Asbestos at Work regulations 2002, Manual Handling Operations regulations 1992, Electricty at Work Regulations 1989, The personal Protective Equipment at Work regulations 2002, The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR), Control of Major Accident Hazards regulations 1999 (COMAH), Work in Compressed Air regulations 1996, Reporting of Injuries Diseases and Dangerous Occurrences regulations 1995 (RIDDOR), The Health and Safety (First-Aid) regulations 1981, The Noise at Work regulations 1989, Pressure Equipment regulations 1999, The Supply of Machinery (Safety) regulations 1992).
Enforce Health and Safety and Environmental Practices:	The Health and Safety file required under CDM regulations, Emergency Procedures, Incidents and accidents during construction, Management Plan for Safe Working Practices (HSE Risk Assessment, Stages in carrying out an environmental risk assessment, Environmental Risk Assessment), Site Safety Risk Assessment Plans.

Recommended Reading

1. Heap, A. (1987) *Improving Site Productivity in the Construction Industry*. International Labour Office.
2. Chandler, I.E. (1987) *Material Management on Building Site*. London: The Construction Press.
3. Harris, F. (1989) *Construction Equipment and Methods*. Longman .
4. Garrett, C. and Hedley, G. (1983) *Practical Site Management: An Illustrated Guide.* 2nd ed. Longman.
5. Pellicer, E., Yepes, V., Teixeira, J. C., Moura, H. P., Catalá, J. (2013) *Construction Management*. United Kingdom: Wiley.

CM310: Forms of Contract	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Become familiar with construction contracts and responsibilities of contracting parties. 2. Show familiarity with Forms of Construction Contracts such as FIDIC, JCT, NEC. 3. Demonstrate an understanding of the principles and process of formation of construction contracts and describe the importance of contractual documents. 4. Demonstrate a basic knowledge and understanding of the importance of ethics in contract management. 5. Identify the constituents of contract documents and their significance for proper execution of the contract. 6. Explain the need of lump sums in a contract. 7. Appraise contractual problems and identify contractual provisions and procedures involved in the administration of building contracts, within the context of commonly used standard forms of contract.
Indicative Content	
Types of Contract:	Types of Contract (Contract based on Bills of Firm Quantities, Contracts based on Drawings and Specifications, Contracts based on Bills of Approximate Quantities, Contracts based on Schedule of Rates, Type of Schedules), Standard Schedule, 'Ad hoc' Schedule, Bills of Quantities from Previous Contracts, Contracts based on Cost Reimbursement, Cost Plus Percentage Fee, Costs Plus Fixed Fee, Target Cost, The Composite Nature of Contracts, Circumstances in which the Various Types of Contracts are used.
Fundamental of Agreement:	Lump-Sum Agreement (Stipulated Sum, Fixed Price), Unit-Price Agreement, Cost-Plus-Fee Agreements, (Percentage Fee, Fixed Fee, Fixed Fee with Guaranteed Maximum Cost, Sliding Scale Fee, Fixed Fee with a Bonus and Penalty), Agreement Provisions (Scope of the Work, Time of Completion, Contract Sum, Progress Payments, Retained Percentage, Schedule of Values, Work in Place and Stored Materials, Acceptance and Final Payment), Templates-Condition of Contract and other forms.
Contractual Documents - JCT Forms:	Structure of Contract Documents (Form of contract, Bills of quantities, Specification, Schedule of works, Schedule of rates, Drawings, Preparations for executing the contract, Form of contract, The Conditions, Bills of quantities, Specification, Schedule of Works, Drawings, Copies of contract documents, The contract sum).

Forms of Construction Contract:	FIDIC contracts (Commencement and completion, Extension of time, Variations, Changes in quantity, Particular entitlements, Delays caused by authorities, Definition of force majeure, Climatic conditions, Unforeseeable shortages, Prevention, Insurance), Building Forms (JCT 2005 contracts, Commencement and completion, Notification of delay, Conditions precedent, Extension of time, Instructions, Specified perils, Force majeure, Payment of liquidated damages), NEC 3 — Engineering And Construction Contract, 2005 (Commencement and completion, Sectional completion and key dates, Extension of time, Listed compensation events, Delay damages, Listed compensation events, Delay damages).

Recommended Reading

1. JCT. (1987) *Practice Note 23 A Contract Sum Analysis*. RIBA Publications.
2. Keating, D. (1995) *Keating on Building Contracts*. 6th ed. Sweet & Maxwell.
3. Kwakye, A.A. (1997) *Construction Project Administration in Practice.* Routledge.
4. Ashworth, A., Higgs, C. and Hogg, K. (2013) *Willis's Practice and Procedure for the Quantity Surveyor.* 13th ed. Oxford: Blackwell.
5. Birchal, S., Griffiths, P. and Ramus, J.W. (1998) *Contract Practice for Surveyors.* 3rd ed. Oxford: Butterworth-Heinemann.
6. Seeley, I. (1997) *Quantity Surveying Practice.* 2nd ed. Hampshire: Palgrave Macmillan.

CM320: Construction Claims	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Display an understanding of works progress and determining /evaluating the effects of delay, prolongation and disruption. 2. Manage project documentation to assess the merit of claim and manage disputes. 3. Provide contractual advice on matters arising on a project. 4. Manage liability and quantify damages in a timely and cost effective manner. 5. Relieve liquidated damages and claim additional time with costs. 6. Identify and recognise relevant issues and why they are important. 7. Avoid claims arising out by possible problems. 8. Carry out notice requirements of the contracts. 9. Identify a process for managing change orders. 10. Prepare a high standard report including credible entitlement of the claims and the result towards economical resolution without expenses.
Indicative Content	
Fundamental of Claims:	Introduction, Type of claims (Contractual claims, Common law claims, Quantum meruit claims, Ex gratia claims), Basis of claims (Justified claims, Contractual claims, Unexpected problems and expense) Claims under the contract (Variations, Measurement changes, Adverse physical obstructions or conditions, Employer's risks, Compliance with statutes, Regulations, Price fluctuations, Currency and other economic causes, Defects and unfulfilled obligations, Failure to commence, Delays, Suspension of work, Release from performance, Default and termination, Other miscellaneous specified events).
Extension of Time and Liquidated Damages:	Purposes of extension provisions, Contractor's basic entitlement — FIDIC forms (Assessment of delay, Grounds for extensions of time, A cause of delay referred to in the Conditions, Unforeseeable physical conditions), Basic Requirements, Full supporting particulars (Presentation, The Engineer's Obligations), Notices, Applications and assessments (Proof of entitlement, Need for records, Monthly progress meetings, Usefulness of programmes) Liquidated damages.
Change Management:	Importance and variation requests (Instructed variation, Request for variations), Rules, Procedures, Claims (Development of claims, Procedures or Processes of claims).

Claims Relating to Money:	Prolongation (When should the delay costs be evaluated?, The 'heads' of a prolongation, Concurrent Delay Events, Classification of 'delays'), Damages and compensation, Disruption (Higher labour costs per hour, Loss of productivity (inefficiency)), Acceleration, Mitigation.
Projects and Problems:	Common occurrences, Cause and effect, Allocation of culpability, Counter claims, Analytical methods and evaluation techniques, Delay, Prolongation, Acceleration, Mitigation, Disruption, Document precedence, Key clauses.
Preparation of Substantiation of Claims:	Research (Objectives and methods, Focus areas, Trends and trails with its contents, Data basing, Notes/ comments, Key words), Process (Review and analysis of claim), Presentation (Structured documents and contents, House style).

Recommended Reading

1. Chappell, D. (2011) *Building Contract Claims.* 5th ed. Wiley-Blackwell. (pp. 95-113, 192-206)
2. Robinson, M. (2011) *A Contractor's Guide to the FIDIC Conditions of Contract.* Wiley-Blackwell. (pp. 159-161)
3. Rowlinson, M. (2018) *A Practical Guide to the NEC4 Engineering and Construction Contracts.* Wiley-Blackwell.
4. Taylor, M. (2000) *Avoiding Claims in Building Design: Risk Management in Practice.* Wiley-Blackwell. (pp. 13-18)
5. Eggleston, B. (2008) *The NEC 3 Engineering and Construction Contract: A Commentary.* 2nd ed. Wiley-Blackwell. (pp. 58-75, 126-149)
6. FIDIC. (2017) *Plant and Design-Build Contract.* 2nd ed. FIDIC.
7. JCT. (2016) *Standard Building Contract without Quantities.* JCT.
8. Powell-Smith, V. (2000) *Contract Documentation for Contractors.* 3rd ed. Wiley-Blackwell. (pp. 115-164).
9. Fafinski, S. and Finch, E. (2023) *Contract Law.* 8th ed. Pearson.
10. Godwin, W. (2013) *International Construction Contracts: A Handbook.* Wiley-Blackwell.
11. Ellis, R. and Randolph Thomas, H. (2008) *Interpreting Construction Contracts.* American Society of Civil Engineers. (pp. 37-48, 49-81, 160-199)
12. Brandon, P., Mole, T., & Venmore-Rowland, P. (1991) *Investment, Procurement and Performance in Construction*. Routledge.
13. Eggleston, B. (2008) *Liquidated Damages and Extensions of Time in Construction Contracts.* 3rd ed. Wiley-Blackwell. (pp. 41-66, 71-128)

CM330: Construction Planning and Scheduling	
Knowledge, Understanding and Skills	**Module Learning Outcomes - Learners Will:**
	1. Understand the critical path method of scheduling. 2. Identify types of float, and the use of float to manage projects. 3. Create check sheets; linear or line of balance schedules; bar charts; short interval schedules; critical path networks. 4. Perform delay and disruption analysis. 5. Carry out risk analysis. 6. Understand principles of effective leadership. 7. Calculate Extension of Time, Prolongation Time, Standing Time, etc.
Indicative Content	
Introduction to Planning and Scheduling:	Planning process in the project cycle, PRINCE2, Project execution plan, Cost and benefits of planning.
Planning and Scheduling Techniques:	Selecting a scheduling system, To-do lists, Checklist, Automating checklist schedules with Microsoft Excel, Electronic planners, Magnetic scheduling boards.
Project Scheduling and Analysis:	Basis (Early and Late Start/Finish Times, Critical path, Calculations), Type of schedules (Baseline schedule, Updated schedule, Recovery schedule, Re-baseline schedule, As-built schedule), Software programmes (Primavera, Microsoft Project, Purpose and Application), Delay Types (Excusable delay event, Non-Excusable delay, Excusable and compensable delay, Concurrent delay).
Schedule Risk Management:	Types of risk in construction projects, Schedule risk types, Importance of good planning for risk management, Importance of good CPM scheduling practices for risk assessment, Schedule risk management steps.
Delay Analysis:	The programme in a claim situation, Main Types of Schedule Analysis (As-planned vs. As-built schedule analysis method, Impact as-planned schedule analysis method, Collapsed as-built schedule analysis method),Time impact analysis method (snapshot analysis and window analysis).

Recommended Reading

1. Mubarak, S. (2010. *Construction Project Scheduling and Control.* 2nd ed. Wiley.
2. Heffernan, B. (2010) *Project 2010: Basic Student Manual*. Axzo Press.
3. Howard, B. (2013) *Microsoft Project 2013 Plain & Simple.* Microsoft Press.
4. Daley, S. (2011) *Microsoft Project 2010 In Depth*. QUE.
5. Del Pico, W.J. (2013) *Project Control: Integrating Cost and Schedule in Construction.* RSMeans.
6. Chatfield, C. and Johnson, T. (2013) *Step by Step Microsoft Project 2013*. Microsoft Press.
7. Atchison, S. and Kennemer, B. (2011) *Using Microsoft Project 2010.* QUE.
8. Oracle. *Primavera Project Management P6 Reference Manual Version 7.0.*
9. Project Management Institute. (2009. *Practice Standard for Project Risk Management.* PMI.
10. Brown, J. (2011) *Project Scheduling with Primavera P6 Training Manual.* California Department of Transportation.

CM340: Construction Alternative Dispute Resolution - Arbitration framework with competence statement and indicators for Associates An Associate has demonstrated basic knowledge of all areas of the ADR competence framework. (Knows)			
Process and Procedure Competencies	**A1. Plans, manages, and concludes the arbitration procedure in accordance with the applicable procedural rules and principles.**	**A2. Actively and strategically manages the arbitration procedure from inception to award.**	**A3. Differentiates between ADR roles and processes and proactively self-manages when switching role or process.**
Indicative indicators of competence	• Identifies the difference between public and private dispute resolution. • Identifies the contractual basis of arbitration, mediation, and adjudication. • Recognises how key rules and principles underpin and constrain arbitration.	• Recognises core terminology and basic procedural steps in arbitration. • Recognises the importance of procedure in creating a binding award.	• Identifies the difference between adjudicative and non-adjudicative processes. • Identifies the key features of arbitration, mediation, and adjudication. • Recognises typical features and responsibilities or arbitrators, mediators, and adjudicators.
People and Communication Competencies	**B1. Enables and enforces an environment of safe, fair, inclusive, and procedure-appropriate interaction.**	**B2. Actively communicates to enable effective and procedurally compliant participation from all involved.**	**B3. Complies with equality, diversity, and inclusion (EDI), ethical and practice standards, and actively engages in reflective practice.**
Indicative indicators of competence	• Recognises the concept of conflict of interest. • Identifies key duties of arbitrators in ensuring procedure-appropriate interaction. • Identifies the importance of equality, diversity, inclusion, and cultural awareness in ADR.	• Identifies the communication and digital skills required by effective arbitrators, mediators, and adjudicators. • Recognises typical limitations on how arbitrator and participants may interact.	• Recognises and manages ethical issues. • Identifies CIArb ethical and practice standards. • Completes a reflective practice exercise.
Outcome Competencies	**C1. Applies understanding of the relevant legal principles and evidence gathering techniques, to develop a view, based on facts, legal principles, and sector-specific insight.**	**C2. Manages evidence, hearings, procedural and sector expertise tactically to maximise the opportunity for a legally sound and uncontested award.**	**C3. Structures, writes and evidences awards congruent with relevant rules, principles and ethical standards that withstand scrutiny.**
Indicative indicators of competence	• Identifies what is considered relevant information in different types of ADR. • Recognises core legal principles underpinning arbitration, such as the law of evidence, contract, and negligence.	• Identifies core skills in managing evidence and information in substance and in law. • Identifies key elements in producing a sound and uncontested award.	• Identifies the arbitrator's role in award writing. • Recognises core features of a binding award. • Recognises global variation in practice.

Recommended Reading

1. JCT. (1987) *Practice Note 23 Contract Sum Analysis.* RIBA Publications.
2. Keating, D. (1995) *Keating on Building Contracts.* 6th ed. Sweet & Maxwell.
3. Kwakye, A.A. (1997) *Construction Project Administration in Practice.* Wesley Longman.
4. Ashworth, A., Higgs, C. and Hogg, K. (2013) *Willis's Practice and Procedure for the Quantity Surveyor.* 13th ed. Oxford: Blackwell.
5. Ramus, J.W. & Birchal, S. & Griffiths, P. (1998) *Contract Practice for Surveyors*. 3rd ed. Oxford: Butterworth-Heinemann
6. Seeley, I. (1997) *Quantity Surveying Practice*. 2nd ed. Hampshire: Palgrave Macmillan
7. The Stationary Office Ltd. (1998) *The Scheme for Construction Contracts (England and Wales Regulations).*
8. Kennedy and Milligan, *Research Analysis of the Progress of Adjudication*, Report No 7 (Adjudication Reporting Centre: Glasgow Caledonian University, August 2005).
9. Chau, K.W. (2007) 'Insight into resolving construction disputes by mediation/adjudication in Hong Kong', *Journal of Professional Issues in Engineering Education and Practice*, 133(2), pp. 143—147.
10. Cheung, S.O. (1999) 'Critical factors affecting the use of alternative dispute resolution processes in construction', *International Journal of Project Management*, 17(3), pp. 189—194.
11. Cheung, S.O. and Yiu, T.W. (2006) 'Are construction disputes inevitable?', *IEEE Transactions on Engineering Management*, 53(3), pp. 456—470.
12. Cheung, S.O., Suen, H.C. and Lam, T.-I. (2002) 'Fundamentals of alternative dispute resolution processes in construction', *Journal of Construction Engineering and Management*, 128(5), pp. 409—417.
13. Cheung, S.O. et al. (2000) 'Factors affecting clients' project dispute resolution satisfaction in Hong Kong', *Construction Management and Economics*, 18(3), pp. 281—294.
14. UNCITRAL Arbitration Rules (as revised in 2010)
15. ICC Arbitration Rules