<table>
<tr><td>1.</td><td colspan="5">Name of Course</td><td>Contract management</td></tr>
<tr><td>2.</td><td colspan="5">Course Code</td><td>JCOM3263</td></tr>
<tr><td></td><td colspan="6">JCOM = the first alphabet identify the faculty within which the subject is offered., JCOM= the remaining three alphabet identify the course that offers the subject, 3263 = the first digit identify level of study; in this case undergraduate level, 3263 = the second and third digits identify subject identity and 3263= the fourth digit identify credit value or credit hours</td></tr>
<tr><td>3.</td><td colspan="5">Name(s) of academic staff</td><td>To be Assigned</td></tr>
<tr><td>4.</td><td colspan="5">Rationale for the inclusion of the course/module in the programme</td><td>To develop student’s ability in working at site and enable them to develop the skills required for working environment and occupational tasks.</td></tr>
<tr><td>5.</td><td colspan="5">Semester and Year offered</td><td>2/3</td></tr>
<tr><td rowspan="3">6.</td><td colspan="2" rowspan="3">Total Student Learning Time (SLT)
L = Lecture T = Tutorial
P = Practical S=Studio Works
O= Others</td><td colspan="4">Face to Face</td><td rowspan="3">Total Guided and Independent Learning
Independent Study(IS)=84
Total=126</td></tr>
<tr><td>L</td><td>T</td><td>P/S</td><td>O</td></tr>
<tr><td>42</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>7.</td><td colspan="5">Credit Value</td><td>3.0</td></tr>
<tr><td></td><td colspan="6">Lecture (3 hours per week x 14 weeks)</td></tr>
<tr><td>8.</td><td colspan="5">Prerequisite (if any)</td><td>None</td></tr>
<tr><td>9.</td><td colspan="6">Course Objectives
1. The objective of this course is to introduce to the students the basic principles of engineering drawing and familiarise with CAD system

Course Learning Outcomes (CLO)
At the end of the semester students should be able to:

CLO1: Understand the contract principles and procurement procedures
CLO2: Know the Principles of Law, Law of Contract, Tort & Sales of Goods
CLO3: Know the pre-contract activities
CLO4: Understand civil engineering quantities and standard method of measurement, prepare bill of quantities and cost estimates
CLO5: Know the processes of post contract administration of construction projects</td></tr>
<tr><td>10.</td><td colspan="6">Transferable Skills:
This course is expected the development of the following transferable skills:
a) Self-management – an ability to manage time and task
b) Learning skills
▪ An ability to learn both independently and co—operatively;
▪ An ability to use library skills, to find and organize information ;
▪ An ability to use a wide range of academic skills (research, analysis, synthesis etc.);
▪ An ability to identify and evaluate personal learning strategies.
c) Teamwork
▪ An ability to take responsibility and carry out agreed task;
▪ An ability to take initiative and lead other;
▪ An ability to identify and evaluate personal learning strategy.
d) Problem solving
▪ An ability to analyse;</td></tr>
</table>

	▪ An ability to think laterally about a problem; ▪ An ability to identify strategy options; ▪ An ability to solve the problems e) Information technologies ▪ An ability to use specialist software where relevant to the discipline.
11.	**Teaching-learning and assessment strategy** A variety of leaching strategies are used throughout the course, including the following: • Classroom Lessons; Lecturer and power point presentations • Tutorial Session; • Student-Lecturer Discussion • Collaborative and Co-operative learn; • Independent study. **Assessment:** **Coursework** **40%** Assignment 10% Quizzes 10% Test 20% **Examination** **60%** **Total** **100%**
12.	**Synopsis:** This course introduces the students the principles of contract and contract administration. It includes the types of contract, procurement methods, preparation of bill of quantities and the administration of contract and pre and post contract stage.
13.	**Mode of Delivery:** Lectures

14.	**Performance Criteria :**						
	CLO-PLO	Assessment Tool	1	2	3	4	5
	Marks		0-39	40-49	50-59	60-74	75-100
	Grade		**(F)**	**(D,D+)**	**(C-,C,C+)**	**(B-,B,B+)**	**(A-,A,A+)**
	CLO1: Understand the contract principles and procurement procedures	**Assignment** **Quizzes** **Test** **Examination**	**Fail to:** • Know the essential elements of construction contract • Know the various parties to a contract and their roles and responsibilities • Know the different types of contracts for civil engineering works • Understand the General Conditions of contract and the Standard Forms	**Poor to:** • Know the essential elements of construction contract • Know the various parties to a contract and their roles and responsibilities • Know the different types of contracts for civil engineering works • Understand the General Conditions of contract and the Standard Forms	**Satisfactory to:** • Know the essential elements of construction contract • Know the various parties to a contract and their roles and responsibilities • Know the different types of contracts for civil engineering works • Understand the General Conditions of contract and the Standard Forms	**Good to:** • Know the essential elements of construction contract • Know the various parties to a contract and their roles and responsibilities • Know the different types of contracts for civil engineering works • Understand the General Conditions of contract and the Standard Forms	• **Excellent to:** • Know the essential elements of construction contract • Know the various parties to a contract and their roles and responsibilities • Know the different types of contracts for civil engineering works • Understand the General Conditions of contract and the Standard Forms used

			used	used	used	used	
	CLO2: Know the Principles of Law, Law of Contract, Tort, & Sales of Goods	**Assignment** **Quizzes** **Test** **Examination**	**Fail to:** • Know the Principles of Law, Law of Contract, Tort and Sales of Goods	**Poor to:** • Know the Principles of Law, Law of Contract, Tort and Sales of Goods	**Satisfactory to:** • Know the Principles of Law, Law of Contract, Tort and Sales of Goods	**Good to:** • Know the Principles of Law, Law of Contract, Tort and Sales of Goods	**Excellent to:** • Know the Principles of Law, Law of Contract, Tort and Sales of Goods
	CLO3: Know the pre-contract administration of construction project	**Assignment** **Quizzes** **Test** **Examination**	**Fail to:** • Know the contents of tender document • Know the different types of tender and tendering procedures • Know the Pre-qualification and selection of contractors and awarding	**Poor to:** • Know the contents of tender document • Know the different types of tender and tendering procedures • Know the Pre-qualification and selection of contractors and awarding	**Satisfactory to:** • Know the contents of tender document • Know the different types of tender and tendering procedures • Know the Pre-qualification and selection of contractors and awarding	**Good to:** • Know the contents of tender document • Know the different types of tender and tendering procedures • Know the Pre-qualification and selection of contractors and awarding	**Excellent to:** • Know the contents of tender document • Know the different types of tender and tendering procedures • Know the Pre-qualification and selection of contractors and awarding

			process	process	process	process	process
	CLO4: Understand civil engineering quantities and standard method of measurement, prepare the bill of quantities and cost estimates	**Assignment** **Quizzes** **Test** **Examination**	**Fail to:** • Understand civil engineering quantities and standard method of measurement • Undertake taking- off quantities from building and civil engineering drawings • Prepare the bill of quantities and prepare cost estimates	**Poor to:** • Understand civil engineering quantities and standard method of measurement • Undertake taking- off quantities from building and civil engineering drawings • Prepare the bill of quantities and prepare cost estimates	**Satisfactory to:** • Understand civil engineering quantities and standard method of measurement • Undertake taking- off quantities from building and civil engineering drawings • Prepare the bill of quantities and prepare cost estimates	**Good to:** • Understand civil engineering quantities and standard method of measurement • Undertake taking- off quantities from building and civil engineering drawings • Prepare the bill of quantities and prepare cost estimates	**Excellent to:** • Understand civil engineering quantities and standard method of measurement • Undertake taking- off quantities from building and civil engineering drawings • Prepare the bill of quantities and prepare cost estimates
	CLO5: Know the post- contract	**Assignment** **Quizzes**	**Fail to:** • Know the	**Poor to:** • Know the	**Satisfactory to:** • Know the	**Good to:** • Know the	**Excellent to:** • Know the

	administration of construction projects	**Test** **Examination**	procedure for site possession • Understand the needs for risk management, insurances, performance bond • Know the contents of contract document and prepare contract documentation • Understand change management, variation order and extension of time • Know the processes for payments, defect liability and maintenance	procedure for site possession • Understand the needs for risk management, insurances, performance bond • Know the contents of contract document and prepare contract documentation • Understand change management, variation order and extension of time • Know the processes for payments, defect liability and maintenance	procedure for site possession • Understand the needs for risk management, insurances, performance bond • Know the contents of contract document and prepare contract documentation • Understand change management, variation order and extension of time • Know the processes for payments, defect liability and maintenance	procedure for site possession • Understand the needs for risk management, insurances, performance bond • Know the contents of contract document and prepare contract documentation • Understand change management, variation order and extension of time • Know the processes for payments, defect liability and maintenance	procedure for site possession • Understand the needs for risk management, insurances, performance bond • Know the contents of contract document and prepare contract documentation • Understand change management, variation order and extension of time • Know the processes for payments, defect liability and maintenance

			period, final measurement and statement of final account • Understand claims, disputes and arbitration	period, final measurement and statement of final account • Understand claims, disputes and arbitration	period, final measurement and statement of final account • Understand claims, disputes and arbitration	period, final measurement and statement of final account • Understand claims, disputes and arbitration	period, final measurement and statement of final account • Understand claims, disputes and arbitration

15. **Mapping of the Programme Objectives to the Programme Learning Outcomes**

Programme Learning Outcomes (PLO) / Programme Objectives (PO)	**PLO1:** Ability to acquire and apply knowledge of science and engineering fundamentals;	**PLO2:** Acquired in-depth technical competence in civil engineering discipline;	**PLO3:** Ability to undertake problem identification, formulation and solution;	**PLO4:** Ability to utilize systems approach to design and evaluate operational performance;	**PLO5:** Understanding of the principles of design for sustainable development;	**PLO6:** Understanding of professional ethics, Islamic values, social, cultural, global and environmental responsibilities of a professional engineer and commitment to them;	**PLO7:** Ability to communicate effectively, not only with engineers but also with the community at large;	**PLO8:** ability to function effectively as an individual;	**PLO9:** Ability to function effectively in group with the capacity to be a leader or manager;	**PLO10:** Recognizing the need to undertake lifelong learning, and possessing /acquiring the capacity to do so;	**PLO11**: ability to become Entrepreneur;
PEO1: To produce graduates with proficient knowledge and competency in various areas in Civil/Electrical/Mechanical Engineering	✓	✓	✓								
PEO2: To produce graduates with professional, generic attributes to meet the present and future global demands.				✓	✓	✓			✓	✓	
PEO3: To produce graduates with Islamic humanistic values and reinvention skills to meet the requirement of a dynamic environment. These skills include Civil Intelligence, Moral Intelligence, Self-Reliance and Communication Skills							✓	✓	✓		✓

16. **Mapping of the course Learning Outcome to the Programme Outcome**

Programme Learning Outcomes (PLO) / Course Learning Outcome (CLO)	**PLO1:** Ability to acquire and apply knowledge of science and engineering fundamentals;	**PLO2:** Acquired in-depth technical competence in civil engineering discipline;	**PLO3:** Ability to undertake problem identification, formulation and solution;	**PLO4:** Ability to utilise systems approach to design and evaluate operational performance;	**PLO5:** Understanding of the principles of design for sustainable development;	**PLO6:** Understanding of professional ethics, Islamic values, social, cultural, global and environmental responsibilities of a professional engineer and commitment to them;	**PLO7:** Ability to communicate effectively, not only with engineers but also with the community at large;	**PLO8:** ability to function effectively as an individual;	**PLO9:** Ability to function effectively in group with the capacity to be a leader or manager;	**PLO10:** Recognising the need to undertake lifelong learning, and possessing /acquiring the capacity to do so;	**PLO11**: ability to become Entrepreneur;
CLO1: Understand the contract principles and procurement procedure	✓										
CLO2: Know the Principles of Law,Law of Contract, Tort, & Sales of Goods	✓										
CLO3: Know the pre-contract administration of construction projects	✓	✓	✓								
CLO4: Understand civil engineering quantities and standard method of measurement, prepare bill of quantities and cost estimates Know the post- contract	✓	✓	✓								

	administration of construction projects											
	CLO5: Understand civil Engineering quantities and standard method of measurement, prepare bill of quantities and cost estimates	✓										

17.	**Content outline of the course/module and the SLT per topic**						
		Details	**SLT (Hour)**				
			L	**T**	**P**	**IS**	**Total**

	Topic 1	**Principles of Contract**
		• Definition of contract and its importance
		  • Essential elements of construction contract
		  • Roles and responsibilities of parties to the contact – client, contractor and consultants
		  • Contract performance and non-performance
		  • Types of contract
		  ▪ Lump sum
		  ▪ BQ
		  ▪ Cost plus
		  ▪ Turnkey
		  ▪ Design and build
		  • General Conditions of Contract
		  • Forms of contract
		  ▪ FIDIC
		  ▪ ICE
		  ▪ IEM
		  ▪ JKR203
		  ▪ BEM
			6	-	-	12	**18**

	Topic 2	**Contract Law** • Introduction to general principles of the Malaysian law • The law of contract	6	-	-	12	**18**

	Topic 3	**Pre-contract administration**
		• Introduction to Tendering
		• Preparation of tender document
		• Drawing
		• Specification
		• Bill of Quantities
		• Form of Tender
		• Procurement methods
		  ▪ Open tender
		  ▪ Selective tender
		  ▪ Negotiated tender
		• Pre-qualification and selection of contractors
		• Tender evaluation – Technical & Commercial
		• Tender awarding process
			6	-	-	12	**18**

	Topic 4	**Civil Engineering Quantities** • Standard method of measurement • Taking-off • Preparation of bill of quantities • Establish of cost for building and civil engineering works	12	-	-	24	**36**
	Topic 5	**Post Contract administration** • Site possession • Risk management, performance bond, insurances and advance payment • Contract documentation • Evaluation for interim payment • Change management • Variation orders • Extension of time • Defect liability and maintenance period • Liquidated ascertained damages, delays non-completion and termination • Final measurement and statement of final account • Claims • Arbitration	12	-	-	24	**36**
	Total (Hour)		**42**	**-**	**-**	**84**	**126**
18.	**Main references supporting the course** 1. CESMM3 Civil Engineering Standard Method of measurement, ICE, Thomas Telford Publishing 2. NEC (2005) NEC 3 Engineering and Construction Contract, Thomas Telfod Limited						
	Additional references supporting the course 1. International Construction Contract Management, D. B. Morgan, 2005.						
19.	**Other additional information** All materials will be available to the students in the library.						