

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering Management & Economy		Module Delivery
Module Type	Basic		☐ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	QCE0054		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level			Semester of Delivery
Administering Department		CIVIL	College
Module Leader		Diyar Hussain Habbeb	e-mail
Module Leader's Acad. Title		lecture	Module Leader's Qualification
Module Tutor		None	e-mail
Peer Reviewer Name		None	e-mail
Scientific Committee Approval Date		01/06/2023	Version Number
			1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None		Semester
Co-requisites module	None		Semester

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objectives of these courses are to introduce engineering management & economy to civil engineering undergraduate students; in addition to enable, the students to possess the necessary skills to work as residential engineer or executing engineer in construction projects, beside function ethically in their professional civil engineering roles
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• An ability to apply knowledge of mathematics, science and engineering • An ability to design a system, component, or process to meet desired needs within realistic
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Introduction to engineering management [8 hrs] Part B: Relationship between project achieving team and project phases, planning techniques [12 hrs] Part C: general limitation for engineering civil work in Iraq,[21 hrs]. Part D: method of tendering [3 hrs] Part E: Project for Estimation [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	47	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	3.13
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المناهج الأسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, syllabus, and expectations. Textbook. Distribution of data, tabular presentation of data.
Week 2	Introduction to engineering management
Week 3	Relationship between project achieving team and project phases,
Week 4	planning techniques
Week 5	general limitation for engineering civil work in Iraq, engineering contract,
Week 6	project execution approaches, method of tendering

Week 7	Planning for engineering projects
Week 8	Types of Estimation
Week 9	Methods for calculation of construction materials
Week 10	Quantity tables and measurements
Week 11	Methods for calculation of quantity and volumes of materials
Week 12	Time – cost relationship, operation research, linear programming and its application, types of costs.
Week 13	Pricing of Quantity
Week 14	Technical specification
Week 15	Project for Estimation
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	Mid-term Exam
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	- Equipment and methods of construction / translated by Dr. Mohammad Ayub Al-Izzi / publications of University of Technology, 1985	Yes
Recommended Texts	- Cost analyzing guideline for building and construction / Ministry of Construction and Housing, 2014	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Traffic Engineering		Module Delivery
Module Type	Support		☐ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	QCE0056		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level		Semester of Delivery	
Administering Department	CIVIL	College	Engineering
Module Leader	Yasir Mohammed Jebur	e-mail	yasir@wrec.uogasim.edu.iq
Module Leader's Acad. Title	Lecture	Module Leader's Qualification	Ph.D
Module Tutor	None	e-mail	None
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	None
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objective of this course is to introduce students to key topics, issues, and design procedures in the field of traffic engineering. Students are exposed to current design guidelines and are introduced to the basic issues dealing with traffic engineering.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: 1. Analytical ability 2. Comparison between Species different ways.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Driver, vehicle and pedestrian characteristics [8 hrs] Part B: Highway planning and administration [12 hrs] Part C: Fundamental relationship between speed-flow-density. [21 hrs]. Part D: Linear and nonlinear relation (Speed-Density) [3 hrs] Part E: Traffic signs type, shapes and colors and road marking [3 hrs]

Learning and Teaching Strategies	
استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL)			
الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	1.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9,

					10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Driver,
Week 3	vehicle and pedestrian characteristics ,
Week 4	Highway planning and administration ,
Week 5	Highway planning and administration ,
Week 6	Types of sight distances ,
Week 7	Geometric design (Elements and control) ,
Week 8	Traffic studies (Volume, speed, capacity, delay, and headway)
Week 9	Traffic studies (Volume, speed, capacity, delay, and headway)
Week 10	Fundamental relationship between speed-flow-density.
Week 11	Linear and nonlinear relation (Speed-Density) ,
Week 12	Types of at grade intersections and interchange ,
Week 13	Design of traffic signals (Webster method) ,
Week 14	Traffic signs type, shapes and colors and road marking , Parking types ,
Week 15	Type of weaving section , Traffic accident causes, types, reporting surveys, and accident rates
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر

	Material Covered
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Grading Scheme مخطط الدرجات

Week 1	Videos of data collected from field
Week 2	Collecting flow data from field
Week 3	Collecting speed data from field
Week 4	Collecting headway data
Week 5	Analysis and determining flow relationship from field data- PHF
Week 6	Understanding how to use the HCS for different facilities such as basic freeway, multi-lane, two-lane, weaving, merging and intersections
Week 7	Understanding how to use the HCS for different facilities such as basic freeway, multi-lane, two-lane, weaving, merging and intersections
Week 8	Mid-term Exam
Week 9	Collecting data for urban transportation planning
Week 10	Collecting data for urban transportation planning
Week 11	Videos of data collected from field
Week 12	Collecting flow data from field
Week 13	Collecting speed data from field
Week 14	Collecting headway data
Week 15	Analysis and determining flow relationship from field data- PHF
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Garber, N. and Hoel L. <i>Traffic and Highway Engineering</i> , 4 th Edition, Cengage Learning, Toronto ON. 2. HCM (2000). <i>Highway Capacity Manual</i> . Transportation Research Board, TRB Special Report 209, USA	Yes
Recommended Texts	Optional Text: 1. HCM (2010). <i>Highway Capacity Manual</i> . Transportation Research Board, TRB Special Report 616, USA 2. Institute of Transportation Engineering, ITE. (2010). <i>Traffic Engineering Handbook</i> . 6 th Edition, USA: Washington.	No
Websites		

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Theory of Structures II		Module Delivery	
Module Type	Core		☐ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	QCE0061			
ECTS Credits	6			
SWL (hr/sem)	150			
Module Level		Semester of Delivery		
Administering Department	CIVIL	College	Engineering	
Module Leader	Fatimah Hameed Naser		e-mail	fatimah_mamoori@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	Assets Professor	Module Leader's Qualification	Ph.D.	
Module Tutor	None	e-mail	None	
Peer Reviewer Name	None	e-mail	None	
Scientific Committee Approval Date	01/06/2023	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	QCE0051	Semester	Five
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objective of the course is to learn the students how to deal with the analysis of different types of structural systems. Moreover, this course is needed for all subsequent structural design courses.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: A-Program Outcomes – Knowledge and Understanding A1- An ability to apply knowledge of mathematics, science and engineering A4- An ability to identify, formulate, and solve engineering problems
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Types of loads Equilibrium [8 hrs] Part B: Stability and Determinacy of Structures [12 hrs] Part C: Analysis of Different Types of Determinate Trusses [21 hrs]. Part D: Shearing Force and Bending Moment Diagrams for Frames Axial Force [3 hrs] Part E: Influence Line for Statically Determinate Structures [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.8

Total SWL (h/sem)		150			
الحمل الدراسي الكلي للطلاب خلال الفصل					
Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Deflection of Statically Determinate Structures by " Unit Load Method "
Week 3	Deflection of Statically Determinate Structures by " Unit Load Method "
Week 4	Deflection of Statically Determinate Structures by " Unit Load Method "
Week 5	Analysis of Statically Indeterminate Structures by " Consistent Deformation Method "
Week 6	Analysis of Statically Indeterminate Structures by " Consistent Deformation Method "
Week 7	Analysis of Statically Indeterminate Structures by " Consistent Deformation Method "
Week 8	Analysis of Statically Indeterminate Structures by " Consistent Deformation Method "
Week 9	Analysis of Statically Indeterminate Structures by " Slope - Deflection Method "
Week 10	Analysis of Statically Indeterminate Structures by " Slope - Deflection Method "
Week 11	Analysis of Statically Indeterminate Structures by " Slope - Deflection Method "
Week 12	Analysis of Statically Indeterminate Structures by " Slope - Deflection Method "
Week 13	Analysis of Statically Indeterminate Structures by " Moment Distribution Method " .
Week 14	Analysis of Statically Indeterminate Structures by " Moment Distribution Method " .
Week 15	Analysis of Statically Indeterminate Structures by " Moment Distribution Method " .

Week 16	Preparatory week before the final Exam
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Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	Mid-term Exam
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1- Hibbeler, R.C. "Structural Analysis", Sixth Edition, Pearson Prentice Hall, 2006. 2- Aslam Kassimali "Structural Analysis" 1993, PWS KENT Publishing Company-	Yes

Recommended Texts	Optional Text: 1- Mckenzie W.M.C. Examples in Structural Analysis, Taylor & Francis Publishing Company, 2006.	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Theory of Structures I		Module Delivery	
Module Type	Core		☐ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	QCE0051			
ECTS Credits	6			
SWL (hr/sem)	150			
Module Level		Semester of Delivery		
Administering Department	CIVIL	College	Engineering	
Module Leader	Fatimah Hameed Naser		e-mail	fatimah_mamoori@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	Assets Professor	Module Leader's Qualification	Ph.D.	
Module Tutor	None		e-mail	None
Peer Reviewer Name	None		e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0	

Relation with other Modules				
العلاقة مع المواد الدراسية الأخرى				
Prerequisite module	None		Semester	None
Co-requisites module	None		Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objective of the course is to learn the students how to deal with the analysis of different types of structural systems. Moreover, this course is needed for all subsequent structural design courses.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: A-Program Outcomes – Knowledge and Understanding A1- An ability to apply knowledge of mathematics, science and engineering A4- An ability to identify, formulate, and solve engineering problems
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Types of loads Equilibrium [8 hrs] Part B: Stability and Determinacy of Structures [12 hrs] Part C: Analysis of Different Types of Determinate Trusses [21 hrs]. Part D: Shearing Force and Bending Moment Diagrams for Frames Axial Force [3 hrs] Part E: Influence Line for Statically Determinate Structures [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	5.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
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Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المناهج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Types of loads Equilibrium ,
Week 3	Stability and Determinacy of Structures ,
Week 4	Types of Trusses ,
Week 5	Analysis of Different Types of Determinate Trusses ,
Week 6	Shearing Force and Bending Moment Diagrams for Frames Axial Force ,
Week 7	Axial Force ,
Week 8	Shearing Force and Bending Moment Diagrams for Frames ,
Week 9	Shearing Force and Bending Moment Diagrams for Frames ,
Week 10	Floor Beam Systems , Influence Line for Statically Determinate Structures ,
Week 11	Floor Beam Systems , Influence Line for Statically Determinate Structures ,
Week 12	Series of concentrated moving loads on statically determinate Structures ,
Week 13	Series of concentrated moving loads on statically determinate Structures ,
Week 14	Approximate Analysis of Statically Indeterminate Structures.
Week 15	Approximate Analysis of Statically Indeterminate Structures.
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	Mid-term Exam
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1- Hibbeler, R.C. "Structural Analysis", Sixth Edition, Pearson Prentice Hall, 2006. 2- Aslam Kassimali "Structural Analysis" 1993, PWS KENT Publishing Company-	Yes
Recommended Texts	Optional Text: 1- Mckenzie W.M.C. Examples in Structural Analysis, Taylor & Francis Publishing Company, 2006.	No
Websites		

Grading Scheme مخطط الدرجات				
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	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Soil Mechanics II		Module Delivery	
Module Type	Core		☐ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	QCE0063			
ECTS Credits	5			
SWL (hr/sem)	125			
Module Level		Semester of Delivery		
Administering Department	CIVIL	College	Engineering	
Module Leader	Yasir Mohammed Jebur		e-mail	yasir@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	Lecture	Module Leader's Qualification	Ph.D.	
Module Tutor	None		e-mail	None
Peer Reviewer Name	None		e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0	

Relation with other Modules				
العلاقة مع المواد الدراسية الأخرى				
Prerequisite module	QCE0053		Semester	Five
Co-requisites module	None		Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objectives of these courses are to introduce soil mechanics to civil engineering undergraduate students and to familiarize the students with soil terminology and concepts commonly encountered in engineering practice.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: 1. An ability to identify pore water pressure and soil permeability. 2. An ability to calculate and determine total, elevation and pressure heads in soil and drawing flow nets for two dimensional flow. 3. An ability to identify, and calculate the consolidation properties in fine grained soils. 4. The ability to calculate and identify shear and principle stresses in soils.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Response of effective stress to change in total stress [8 hrs] Part B: consolidation analogy [12 hrs] Part C: Influence of seepage on effective stresses [21 hrs]. Part D: liquefaction in sands [3 hrs] Part E: drained shear strength parameters [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	47	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.13
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Response of effective stress to change in total stress
Week 3	consolidation analogy ,
Week 4	Influence of seepage on effective stresses ,
Week 5	Influence of seepage on effective stresses ,
Week 6	Shear failure
Week 7	Mohr – Colomb failure law
Week 8	shear strength parameters
Week 9	Basic relationships
Week 10	Shear strength tests: Laboratory tests (tri – axial compression and direct shear),
Week 11	Shear strength of sands,
Week 12	liquefaction in sands
Week 13	normally consolidated and over consolidated soils,
Week 14	Flow in soil, permeability in soil, permeability tests.
Week 15	Flow in soil, permeability in soil, permeability tests.
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	Field compaction test (fine grained soils)
Week 2	Field compaction test (fine grained soils)
Week 3	Field compaction test (coarse grained soils)
Week 4	Field compaction test (coarse grained soils)
Week 5	Direct shear test
Week 6	Direct shear test
Week 7	Vane shear test
Week 8	Vane shear test
Week 9	Mid-term Exam
Week 10	Unconfined compressive strength test UCS
Week 11	Unconfined compressive strength test UCS
Week 12	One dimensional consolidation test
Week 13	One dimensional consolidation test
Week 14	Triaxial test
Week 15	Triaxial test
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Das, B. M., 2009, Principles of Geotechnical Engineering, 7th Edition, Brooks-Cole, Pacific Grove, California, ISBN 0-495-41130-2. 2. Lectures of Soil Mechanics by Prof. Dr. Mohammed Shaker Al Shakerchy from http://eng.uokufa.edu.iq/staff/mohammedsh/index.html . 3. The laboratory textbook for this course is: booklet of soil laboratory prepared by laboratory staff.	Yes
Recommended Texts	Optional Text:	No
Websites	1. http://elearning7.uokufa.edu.iq/eng/course/view.php?id=1245	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Soil Mechanics I		Module Delivery
Module Type	Core		☐ Theory ☒ Lecture ☒ Lab ☒ Tutorial ☐ Practical ☐ Seminar
Module Code	QCE0053		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level		Semester of Delivery	
Administering Department	CIVIL	College	Engineering
Module Leader	Yasir Mohammed Jebur	e-mail	yasir@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	lecture	Module Leader's Qualification	Ph.D.
Module Tutor	None	e-mail	None
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	None
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objectives of these courses are to introduce soil mechanics to civil engineering undergraduate students and to familiarize the students with soil terminology and concepts commonly encountered in engineering practice.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: 1. An ability to identify soil properties and soil classification. 2. An ability to calculate and determine the stresses in soil for different loading shapes. 3. An ability to identify, formulate, and solve engineering problems
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Soil nature , origin of soils [8 hrs] Part B: structural units of clay mineral particle, soil gradation (particle size characteristics) [12 hrs] Part C: plastic of soil and Atterbic limit [21 hrs]. Part D: soil classification and soil descriptive, phase relations [3 hrs] Part E: stresses within soil masses and concept of effective stresses [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL)			
الحمل الدراسي للطالب			
Structured SWL (h/sem)	78	Structured SWL (h/w)	5
الحمل الدراسي المنتظم للطالب خلال الفصل		الحمل الدراسي المنتظم للطالب أسبوعيا	
Unstructured SWL (h/sem)	47	Unstructured SWL (h/w)	3.13
الحمل الدراسي غير المنتظم للطالب خلال الفصل		الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem)	125		
الحمل الدراسي الكلي للطالب خلال الفصل			
Module Evaluation			
تقييم المادة الدراسية			

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Soil nature .
Week 3	origin of soils.
Week 4	structural units of clay mineral particle.
Week 5	structural units of clay mineral particle.
Week 6	soil gradation (particle size characteristics).
Week 7	soil gradation (particle size characteristics).
Week 8	soil classification and soil description.
Week 9	soil classification and soil description.
Week 10	phase relations,
Week 11	compaction ,
Week 12	stresses within soil masses and concept of effective stresses,
Week 13	stresses within soil masses and concept of effective stresses,
Week 14	principle stress and Mohor circle,
Week 15	stress path concept.
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	Moisture Content
Week 2	Moisture Content
Week 3	Organic Content
Week 4	Organic Content
Week 5	Specific Gravity
Week 6	Specific Gravity
Week 7	Atterberg Limits
Week 8	Atterberg Limits
Week 9	Mid-term Exam
Week 10	Soil particle distribution (sieve analysis)
Week 11	Soil particle distribution (sieve analysis)
Week 12	Soil particle distribution (hydrometer)
Week 13	Soil particle distribution (hydrometer)
Week 14	Soil compaction (standard proctor test)
Week 15	Soil compaction (Modified proctor test)
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Das, B. M., 2009, Principles of Geotechnical Engineering, 7th Edition, Brooks-Cole, Pacific Grove, California, ISBN 0-495-41130-2. 2. Lectures of Soil Mechanics by Prof. Dr. Mohammed Shaker Al Shakerchy from http://eng.uokufa.edu.iq/staff/mohammedsh/index.html . 3. The laboratory textbook for this course is: booklet of soil laboratory prepared by laboratory staff.	Yes
Recommended Texts	Optional Text:	No
Websites	1. http://elearning7.uokufa.edu.iq/eng/course/view.php?id=1245	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Design of Reinforced Concrete II		Module Delivery
Module Type	Core		☐ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	QCE0062		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level		Semester of Delivery	
Administering Department	CIVIL	College	Engineering
Module Leader	Wissam Nadir Najim		e-mail
		wissam.nadir@wrec.uoqasim.edu.iq	
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	Ph.D.
Module Tutor	None	e-mail	None
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	QCE0052	Semester	Five
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objective of the course is to learn the students how to deal with reinforced concrete structural systems and design them according to design codes. Moreover, the course introduces the pre-stressed concrete structures for simple structures
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: A- An ability to apply knowledge of mathematics, science and engineering. A3- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability . A4- An ability to identify, formulate, and solve engineering problems
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Slabs, one way solid [8 hrs] Part B: one way ribbed [12 hrs] Part C: two-way solid and two-way ribbed [21 hrs]. Part D: Compression members (columns) [3 hrs] Part E: Torsion, Stairways [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Slabs,
Week 3	one way solid, one way ribbed
Week 4	one way solid, one way ribbed
Week 5	one way solid, one way ribbed
Week 6	two-way solid, two-way ribbed,
Week 7	two-way solid, two-way ribbed,
Week 8	two-way solid, two-way ribbed,
Week 9	two-way solid, two-way ribbed,
Week 10	Compression members (columns),
Week 11	Compression members (columns),
Week 12	Compression members (columns),
Week 13	Torsion, Stairways
Week 14	Torsion, Stairways
Week 15	Torsion, Stairways
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	Mid-term Exam
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Darwin D., Dolan, C.W. and Nilson, A.H., "Design of Concrete Structures", McGraw-Hill, Fifteenth Edition, 2016. 2. American Concrete Institute, "Building Code Requirements for Structural Concrete (ACI 318-19)", Farmington Hills, Michigan, 2019. 3. Wight, J.K., "Reinforced Concrete, Mechanics and Design", Pearson Education, Inc., Seventh Edition, 2016.	Yes
Recommended Texts	Optional Text: 1. Hassoun, M.N. and Al-Manaseer, A., "Structural Concrete, Theory and Design", John Wiley & Sons, Inc., Seventh Edition, 2020.	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering Analysis		Module Delivery
Module Type	Support		☐ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	QCE0055		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level		Semester of Delivery	
Administering Department	CIVIL	College	Engineering
Module Leader	Fatimah Hameed Naser	e-mail	fatimah_mamoori@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	Assets Professor	Module Leader's Qualification	Ph. D.
Module Tutor	None	e-mail	None
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	none	Semester	none
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The aim of this course is for all engineering students to introduce them to mathematical modeling and the development of numerical techniques to solve different types of models. A course that develops students to transform real-life problems into mathematical equations and provide the appropriate numerical schemes to approximate solutions of such models. and development of numerical algorithms to provide solutions to common problems formulated in science and engineering. The primary objective of the course is to develop a basic understanding of the construction of numerical algorithms, and perhaps more importantly, the applicability and limits of their appropriate us.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: 1. An ability to apply knowledge of mathematics, science and engineering. 2. An ability to design and conduct experiments, as well as to analyze and interpret data. 3. An ability to identify, formulate, and solve engineering problems .
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Simultaneous Linear Ordinary Differential Equations [8 hrs] Part B: Fourier Series [12 hrs] Part C: Partial Differential Equations [21 hrs]. Part D: Solution of Nonlinear Equations in one real variable [3 hrs] Part E: Solution of partial Differentiation equation [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.13
Total SWL (h/sem)	125		

الحمل الدراسي الكلي للطالب خلال الفصل					
Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Simultaneous Linear Ordinary Differential Equations ,
Week 3	Simultaneous Linear Ordinary Differential Equations ,
Week 4	Fourier Series ,
Week 5	Partial Differential Equations and Boundary Value Problems.
Week 6	Partial Differential Equations and Boundary Value Problems.
Week 7	Solution of Nonlinear Equations in one real variable
Week 8	Solution of Nonlinear Equations in one real variable
Week 9	Numerical Integration,
Week 10	Solution of linear System of equation,
Week 11	Solution of partial Differentiation equation,
Week 12	matrix inversion,
Week 13	Interpolation,
Week 14	curve fitting,
Week 15	Numerical Ordinary solution Differentiation Equations,
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	Mid-term Exam
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Applied Numerical Analysis." Gerald, third edition" .	No
Recommended Texts	Optional Text: Numerical Analysis. " Burdeu, seventh edition" " البياتي عادل د. الالوسي احمد د." العددية التحليلات في مقدمة	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (فيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Design of Reinforced Concrete I		Module Delivery	
Module Type	Core		☐ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	QCE0052			
ECTS Credits	6			
SWL (hr/sem)	150			
Module Level		Semester of Delivery		
Administering Department	CIVIL	College	Engineering	
Module Leader	Wissam Nadir Najim		e-mail	wissam.nadir@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	Ph.D.	
Module Tutor	None	e-mail	None	
Peer Reviewer Name	None	e-mail	None	
Scientific Committee Approval Date	01/06/2023	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	None
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objective of the course is to learn the students how to deal with reinforced concrete structural systems and design them according to design codes. Moreover, the course introduces the pre-stressed concrete structures for simple structures
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: A- An ability to apply knowledge of mathematics, science and engineering. A3- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability . A4- An ability to identify, formulate, and solve engineering problems
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: stresses in concrete [8 hrs] Part B: ultimate strength design method [12 hrs] Part C: working strength design method [21 hrs]. Part D: shear design, length of development [3 hrs] Part E: cut-off points, crack of concert beams [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المناهج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Introduction ,
Week 3	stresses in concrete, ultimate strength design method,
Week 4	stresses in concrete, ultimate strength design method,
Week 5	stresses in concrete, ultimate strength design method,
Week 6	working strength design method ,
Week 7	working strength design method ,
Week 8	working strength design method ,
Week 9	shear design,
Week 10	shear design,
Week 11	length of development, cut-off points,
Week 12	length of development, cut-off points,
Week 13	crack of concert beams ,
Week 14	deflection of concert beams.
Week 15	deflection of concert beams.
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	Mid-term Exam
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Darwin D., Dolan, C.W. and Nilson, A.H., "Design of Concrete Structures", McGraw-Hill, Fifteenth Edition, 2016. 2. American Concrete Institute, "Building Code Requirements for Structural Concrete (ACI 318-19)", Farmington Hills, Michigan, 2019. 3. Wight, J.K., "Reinforced Concrete, Mechanics and Design", Pearson Education, Inc., Seventh Edition, 2016.	Yes
Recommended Texts	Optional Text: 1. Hassoun, M.N. and Al-Manaseer, A., "Structural Concrete, Theory and Design", John Wiley & Sons, Inc., Seventh Edition, 2020.	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Irrigation and Drainage Engineering		Module Delivery	
Module Type	Support		☐ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	QCE0066			
ECTS Credits	4			
SWL (hr/sem)	100			
Module Level		Semester of Delivery		
Administering Department	CIVIL	College	Engineering	
Module Leader	Rana Abd Al Hadi Mukheef		e-mail	Rana1985@wrec.uoqasim.edu.iq
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification	Ph.D.	
Module Tutor	None		e-mail	None
Peer Reviewer Name	None		e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0	

Relation with other Modules				
العلاقة مع المواد الدراسية الأخرى				
Prerequisite module	None		Semester	None
Co-requisites module	None		Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The objectives of these courses are to introduce irrigation and drainage engineering to students in order to build a new civil engineers generations that are capable of comprehend the science of Irrigation and drainage engineering.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A-Program Outcomes – Knowledge and Understanding A1- An ability to apply knowledge of mathematics, science and engineering A3- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability . A4- An ability to identify, formulate, and solve engineering problems D-Program Outcomes – General and transferable skills (other skills relevant to employability and Personal development) D1- An ability to function on multidisciplinary teams .
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Irrigation and Drainage Concept [8 hrs] Part B: Irrigation and Drainage System [12 hrs] Part C: Water content and consumptive Use and Water Duty. [21 hrs]. Part D: Cross @ Longitudinal Section Design [3 hrs] Part E: Drainage Systems [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	22	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.466
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Irrigation and Drainage Concept.
Week 3	Irrigation and Drainage Concept
Week 4	Irrigation and Drainage System
Week 5	Irrigation and Drainage System
Week 6	Water content and consumptive Use and Water Duty
Week 7	Water content and consumptive Use and Water Duty
Week 8	Cross @ Longitudinal Section Design
Week 9	Cross @ Longitudinal Section Design
Week 10	Seepage and canal lining
Week 11	Seepage and canal lining
Week 12	Levelling and Land Grading
Week 13	Levelling and Land Grading
Week 14	Methods of Irrigation
Week 15	Drainage Systems .
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Irrigation and Drainage (Dr.Liath K. Ismaeel) 2. Irrigation (Dr. Mohammed A. Al-najem) 3. Water Resources systems and Management(R. Gupta) 4. Open Channel Hydraulic (V. T. Chow)	Yes
Recommended Texts	Optional Text:	No
Websites	http://elearning7.uokufa.edu.iq/eng/user/profile.php?id=598	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering Analysis and Numerical Methods		Module Delivery
Module Type	Core		☐ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar
Module Code	UOBAB0101054		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level		Semester of Delivery	
Administering Department	CIVIL	College	Engineering
Module Leader	Samer Almashhadi	e-mail	eng.samer.abdul@uobabylon.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	MSc
Module Tutor	None	e-mail	None
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	UOBAB0101041	Semester	Four
Co-requisites module	None	Semester	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	The aim of this course is for all engineering students to introduce them to mathematical modeling and the development of numerical techniques to solve different types of models. A course that develops students to transform real-life problems into mathematical equations and provide the appropriate numerical schemes to approximate solutions of such models. and development of numerical algorithms to provide solutions to common problems formulated in science and engineering. The primary objective of the course is to develop a basic understanding of the construction of numerical algorithms, and perhaps more importantly, the applicability and limits of their appropriate us.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After successful completion of this module, students should be able to: 1. An ability to apply knowledge of mathematics, science and engineering. 2. An ability to design and conduct experiments, as well as to analyze and interpret data. 3. An ability to identify, formulate, and solve engineering problems .
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A: Simultaneous Linear Ordinary Differential Equations [8 hrs] Part B: Fourier Series [12 hrs] Part C: Partial Differential Equations [21 hrs]. Part D: Solution of Nonlinear Equations in one real variable [3 hrs] Part E: Solution of partial Differentiation equation [3 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1) Learning Technologies on Campus using data show or TV screen. 2) White board. 3) Hand out lecture notes. 4) Hand out some kinds of pictures related to specific topics.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	57	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	93	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.466
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 , 8	LO # 2, 3,4 and 6, 7
	Assignments	2	10% (10)	6, 12	LO # 3, 4 , 5 and 9, 10 and 11
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	5% (5)	13	Continuous
Summative assessment	Midterm Exam	2 hr	10% (10)	10	LO # 1-9
	Final Exam	3hr	50% (50)	16 or 17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Welcome to this course, Textbook. Distribution of data, tabular presentation of data.
Week 2	Simultaneous Linear Ordinary Differential Equations ,
Week 3	Simultaneous Linear Ordinary Differential Equations ,
Week 4	Fourier Series ,
Week 5	Partial Differential Equations and Boundary Value Problems.
Week 6	Partial Differential Equations and Boundary Value Problems.
Week 7	Solution of Nonlinear Equations in one real variable
Week 8	Solution of Nonlinear Equations in one real variable
Week 9	Numerical Integration,
Week 10	Solution of linear System of equation,
Week 11	Solution of partial Differentiation equation,
Week 12	matrix inversion,
Week 13	Interpolation,
Week 14	curve fitting,
Week 15	Numerical Ordinary solution Differentiation Equations,
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	Mid-term Exam
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Applied Numerical Analysis." Gerald, third edition" .	Yes
Recommended Texts	Optional Text: Numerical Analysis. " Burdeu, seventh edition" " البياتي عادل د. الالوسي احمد د." العددية التحليلات في مقدمة	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				