

# MODULE DESCRIPTOR FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
<b>Module Title</b>	<b>ENGINEERING GEOLOGY</b>		<b>Module Delivery</b>
<b>Module Type</b>	<b>BASIC</b>		<b>Theory Lecture Tutorial</b>
<b>Module Code</b>	UOMU023023		
<b>ECTS Credits</b>	3		
<b>SWL (hr/sem)</b>	75		
<b>Module Level</b>	1	<b>Semester of Delivery</b>	2
<b>Administering Department</b>	Building and construction techniques	<b>College</b>	Al-Mustaqlal university
<b>Module Leader</b>	<b>Tamar Maitham Al-Asedi</b>	<b>e-mail</b>	<a href="mailto:Tamar.Maitham.Abdulwahabb@uomus.edu.iq">Tamar.Maitham.Abdulwahabb@uomus.edu.iq</a>
<b>Module Leader's Acad. Title</b>	<b>Assistant Lecturer</b>	<b>Module Leader's Qualification</b>	
<b>Module Tutor</b>	None	<b>e-mail</b>	None
<b>Peer Reviewer Name</b>		<b>e-mail</b>	
<b>Review Committee Approval</b>	01/06/2023	<b>Version Number</b>	1.0

Relation With Other Modules			
العلاقة مع المواد الدراسية الأخرى			
<b>Prerequisite module</b>	None		<b>Semester</b>
<b>Co-requisites module</b>	None		<b>Semester</b>
Module Aims, Learning Outcomes and Indicative Contents			
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية			
<b>Module Aims</b>	1- The study aims to know the earth's crust and its mineral and physical		

<b>أهداف المادة الدراسية</b>	<p>properties.</p> <ol style="list-style-type: none"> <li>2. Classification of sedimentary and metamorphic rock species.</li> <li>3. Stabilization of rocky slopes and their impact on buildings.</li> <li>4. The effect of weathering on structures and the factors affecting them.</li> <li>5. Soil formation factors and their engineering properties</li> <li>6- Geological structure of the characteristics of rock strata</li> <li>7- The study aims to know surface and groundwater and its impact on the work site</li> <li>8- Dams, tunnels and loads above them</li> </ol>
<b>Module Learning Outcomes</b>  <b>مخرجات التعلم للمادة الدراسية</b>	<ol style="list-style-type: none"> <li>1-. He has the ability to know the types of rocks on which buildings arise.</li> <li>2- He has the ability to know the types of rocks, their degree of hardness and what they bear from the facility built on it.</li> <li>3- Have the knowledge to face the problem of surface and groundwater and its impact on buildings</li> <li>4- Be able to treat slopes and their impact on nearby buildings</li> </ol>
<b>Indicative Contents</b>  <b>المحتويات الإرشادية</b>	<p>Indicative content includes the following.</p> <ol style="list-style-type: none"> <li>1-Distinguishing between species of terrestrial rocks on which buildings are created</li> <li>2- Identify and study slopes well and how they affect nearby constructions</li> <li>3- Identify the geological structure of dams and their future impacts</li> <li>4- Studying the soil with its different tissues and the surface or groundwater it contains and its future impact on the structure coming</li> </ol>
<b>Learning and Teaching Strategies</b> <b>استراتيجيات التعلم والتعليم</b>	
<b>Strategies</b>	<p>The student will be able to gain the information about the earth materials ( soils , rocks ) , their minerals, properties, and their engineering applications. Also the student will learn the effect of soils and rocks foundations on the stability of structures</p>

<b>Student Workload (SWL)</b> <b>الحمل الدراسي للطالب</b>			
<b>Structured SWL (h/sem)</b>	33	<b>Structured SWL (h/w)</b>	33/15=2.2

الحمل الدراسي المنتظم للطالب خلال الفصل		الحمل الدراسي المنتظم للطالب أسبوعيا	
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	42	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعيا	42/15=2.8
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
<b>Formative assessment</b>	<b>Quizzes</b>	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	<b>Assignments</b>	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	<b>Projects / Lab.</b>	1	10% (10)	Continuous	
	<b>Report</b>	1	10% (10)	13	LO # 5, 8 and 10
<b>Summative assessment</b>	<b>Midterm Exam</b>	1.5 hr	10% (10)	7	LO # 1-7
	<b>Final Exam</b>	3 hr	50% (50)	16	All
<b>Total assessment</b>		100% (100 Marks)			

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week	Syllabus
1	Introduction to the earth science, crust and interior of the earth and Minerals and physical properties
2	Factors effecting on the mineral physical properties and Mineral classification
3	Clay minerals, Minerals Expansive soil and Rocks, Classification of rocks ,igneous rocks
4	Sedimentary rocks, classification of sedimentary rocks
5	Metamorphic rocks, Stabilization of rock slopes
6+7	An engineering classification of rock materials , Weathering and erosion, weathering agents on structures
8	Soil, Soil profile, Soil forming processes and Properties of engineering soil , Properties of engineering rocks and Geological structure , Dipping layer
9+10	Folds, Conformities and Disconformities and Faults, Joints, Effect of Faults and Joints on structures, and Surface water and underground water and Site investigation
11	Dams and tunnels, Type of Dams, loads on Dams, Classification of tunnels and nomenclature, Construction of tunnels

12	Mass movement, causes of mass movement,
13	classification of mass movement, creep, creep causes and treatment, landslides
14+15	causes of landslides, Earthquake due to landslides and Geological investigation, Geophysical investigation Geological sites of reservoirs, Ground reservoirs, Underground reservoirs
Week 16	<b>Final Exam</b>

<b>Learning and Teaching Resources</b> مصادر التعلم والتدریس		
	<b>Text</b>	<b>Available in the Library?</b>
<b>Required Texts</b>	1- Plummer C., Diane H., 2007, " Physical Geology", Mc-Graw Hill, Eleventh edition ن . دنكان . ترجمة كنانة محمد ثابت, ١٩٨٠, "الجيولوجيا الهندسية وmekanik الصخور" , المكتبة الوطنية بغداد 2-	No
<b>Recommended Texts</b>	كنانة محمد ثابت & محمد عمر العشو , ١٩٩٣ "أسس الجيولوجيا للمهندسين" , الموصل , جامعة الموصل	No
<b>Websites</b>		

## APPENDIX:

<b>GRADING SCHEME</b> مخطط الدرجات				
<b>Group</b>	<b>Grade</b>	التقدير	<b>Marks (%)</b>	<b>Definition</b>
<b>Success Group (50 - 100)</b>	<b>A - Excellent</b>	امتياز	90 - 100	Outstanding Performance
	<b>B - Very Good</b>	جيد جدا	80 - 89	Above average with some errors
	<b>C - Good</b>	جيد	70 - 79	Sound work with notable errors
	<b>D - Satisfactory</b>	متوسط	60 - 69	Fair but with major shortcomings
	<b>E - Sufficient</b>	مقبول	50 - 59	Work meets minimum criteria

<b>Fail Group (0 - 49)</b>	<b>FX – Fail</b>	مقبول بقرار	(45-49)	More work required but credit awarded
	<b>F – Fail</b>	راسب	(0-44)	Considerable amount of work required

**Note:**

NB 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.

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي