MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	PLANE SURVEYING			**Module Delivery**	
Module Type	C			**Theory** **Lecture** **Tutorial**	
Module Code	UOMU0203022				
ECTS Credits	10				
SWL (hr/sem)	250				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Building and construction techniques		**College**	Al-Mustaqbal university	
Module Leader	Ass.lec.Baneen Mohammed Hilal		**e-mail**	baneen.mohammed.hilal@uomus.edu.iq	
Module Leader's Acad. Title			**Module Leader's Qualification**		
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name			**e-mail**		
Review Committee Approval	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	After successful completion of this course, the student will be able to		

أهداف المادة الدراسية	understand: 1. The fundamentals and purpose of applied surveying. 2. The fundamental, advantages and principles of theodolite devices. 3. The measuring and calculations of angles including vertical and horizontal angles. 4. The calculations of directions, whole circle bearing and reduce bearings. 5. The kinds of traverses and coordinate calculations. 6. The fundamentals of Tacheometry. 7. The fundamentals of Total Stations. 8. Measuring slope, Horizontal & vertical distances by using an EDM instrument.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Demonstrates knowledge of the fundamentals, purposes & required calculations of the applied surveying to the students as well as qualifying him to use the different kinds of surveying instruments in the design & execution of civil engineering projects. Construct close-connected & close-circle traverses to survey small areas. Demonstrates knowledge of the simple computations of the coordinates of stations traverse & plotting a traverse, Problems in inverse computation. Measuring H. distances & vertical distances by using a tachometer, By using theodolite with a sub-tensebar. Measuring slope, Horizontal & vertical distances by using an EDM instrument.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Demonstrates knowledge of the theodolites, the principle of construction. Measuring Horizontal angles, Measuring angles in the vertical plane, directions, whole circle bearing, reduce bearing, traverse surveys, bearings, and forward & back bearings (introduction). Demonstrates knowledge of close circle traverse, coordinates calculations of the close connected traverse, coordinates calculations Tacheometry, stadia tacheometry, Inclined sights Electromagnetic distance measurement(EDM), basic concept, systems Total station, Field Techniques, point location, missing line measurements, Resecion, Azimuth, elevation, Layout Positions, and area computation.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	123	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	8.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	127	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	8.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	250		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	1.5 hr	10% (10)	7	LO # 1-7
	Final Exam	2.5 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week	**Syllabus**
1	**Introduction: Theodolites, Types of theodolites.**
2+3	**Use and advantages of theodolites, Principle of construction, Measuring Horizontal angles.**
4	**Measuring angles in the Vertical plane, Directions, and examples & problems.**
3+4+5	**Whole circle bearing, Reduce Bearing,**
6+7	**Traverse Surveys, Bearings, forward & Back bearing, examples & problems.**
8+9+10	**Close circle traverse, coordinates calculations, and examples & problems.**
11+12+13	**Close connected traverse, coordinates calculations, and examples & problems**
14+15	**Tacheometry, stadia tacheometry, Inclined sights, examples & problems.**

Week 16	**Final Exam**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. Surveying for construction/William Irvine, FRICS. 2. Text book of surveying / S.K. Husain, M.S. Naga. Raj. 3. Elements of photogrammetry / Wolf, Pual R. 4. Engineering and Design, Control and Topographic Surveying, Department of the Army US Army Corps of Engineers, Washington, DC 20314-1000, 1 January 2007.	
Recommended Texts	1. Engineering and Design, Control and Topographic Surveying, Department of the Army US Army Corps of Engineers, Washington, DC 20314-1000, 1 January 2007.	
Websites		

APPENDIX:

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	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