

السيد رئيس قسم هندسة تقنيات التبريد والتكييف

م/ وصف المقررات الدراسية

تحية طيبة....

نرفق لكم ربطاً وصف المقررات الدراسية للمواد الدراسية في القسم للتفضل بالمصادقة عليها.

مع فائق الاحترام والتقدير.....

السيد رئيس اللجنة العليا

تدقيق: لوهند .. مع لستد كر

گولستد كر
رئيس لستد كر

م.م. ولاء ناصر عباس

مسؤول ضمان الجودة في الكلية

19/3/2024

السيد رئيس القسم المحترم

السيد محترم

تم مناقشة الامور اللجنة العليا

ووصل الى الانتم مع مصادرة مذموم

وصف المقررات والبيانات للبيانات الجواد

مع الشكر

الموافق
19/3/2024

Course Description Form

1. Course Name:	
Mathematics 2	
2. Course Code:	
3. Semester / Year:	
Annual system 2023/2024 – 30 weeks	
4. Description Preparation Date:	
2023/10/01	
5. Available Attendance Forms:	
attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 hours /6 units	
7. Course administrator's name (mention all, if more than one name)	
Name: nihad abduljalil majed Email: nihadABDULJALIL@uowa.edu.iq	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none"> •Helping the student understand mathematical laws and problems Necessary for the purpose of solving simple and complex mathematical equations •Raising the student’s level of mathematics •Developing sound thinking methods and releasing latent energies <p>The student and its application in the engineering field</p>
9. Teaching and Learning Strategies	
Strategy	<p>1) Solve some mathematical problems and solve atypical questions that require multiple skills</p> <p>2) Developing the ability to think sequentially</p> <p>3) Formulating life problems in mathematical terms and use mathematical methods to solve them</p>

10. Course Structure

week	Topics
1	Review in integrals and derivatives
2–3	Vectors: equation of line & plane in space , plane, tangent & vertical line , vector function
4–5	Complex number ,polar form, Euler equation ,exponential & roots of complex number
6–9	Function with two or more variables – partial differentiation – partial differential chain rule – vector and valued differential – maximum and minimum values for two variable functions.
10–13	Double integration – areas and volumes – physical applications – triple integral.
14–15	Polar coordinates – cylindrical and spherical coordinates – curves sketching in polar coordinates
Half – year Break	
16–17	Polar coordinates – cylindrical and spherical coordinates – curves sketching in polar coordinates
18–19	Green,s theory – Divergence theory
20	Linear integration
21–28	Matrix :matrix operations – matrix inversion – linear systems equations – solving linear system by matrix methods – internal values and vectors.
29–30	First order differential equations and simple higher order differential equations

11. Course Evaluation

Distribution of grades out of 100
 The first semester of 10marks includes monthly exams + quizzes + activities
 mid year from 20marks
 The second semester of 10marks includes monthly exams + quizzes + activities
 End of year exam of 60marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Main references (sources)	<p>SWOKOWSKI CALCULUS EDITION 18 TOMAS CALCULUS GEORGE B.THOMAS 12th edition سلسلة مسائل شوم Electronic References, Websites</p>
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	