

King Saud University

College of Applied
Engineering

Muzahimiyah Campus



Linear Algebra and Vector Analysis

2020-2021, First semester

Course Code	Course Name	Credits	Contact Hours
MATH 1120	Linear Algebra and Vector Analysis	3	3

INSTRUCTOR/COORDINATOR	
Name	prof. Khalid Aref,
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MATH 1120	رقم المقرر ورمزہ:	Linear Algebra and Vector Analysis	اسم المقرر:
English	لغة تدريس المقرر:	MATH 1110	المتطلب السابق للمقرر:
3(3,2,0)	الساعات المعتمدة:	Level 3	مستوى المقرر:

مختصر توصيف المقرر

Module Description

وصف المقرر :

Introduction of Linear Algebra. Methods for solving the system of linear equations. Matrices and their algebraic properties. Determinants and properties of the determinant functions. Vector Calculus and line and plane in space are learnt. Calculus of vector valued function is introduced. Notions of limit, continuity, differentiability and optimization of function of several variables are studied.

Module Aims

أهداف المقرر :

To Learn some concepts system of linear equations	
To learn methods for solving system of linear equations	
To learn properties determinants	
To learn about vector Algebra and vector calculus	
To learn about the calculus of function of more than one independent variable.	

مخرجات التعليم: (الفهم والمعرفة والمهارات الذهنية والعملية)

يفترض بالطالب بعد دراسته لهذه المقرر أن يكون قادرا على:

Understanding the methods for solving system of linear equations	
Understanding the vector algebra and calculus	
Ability of solve real life problems in mathematics and engineering.	

الكتاب المقرر والمراجع المساندة:

اسم الكتاب	اسم المؤلف	اسم الناشر	سنة النشر
Linear Algebra	H. Anton and C. Rorres	John Wiley & Sons	10 th ED 2010
Calculus	Swokowski, Olinick and Pence	PWS publishing Co	6 th Ed 1994

Assessment and Grading

First midterm exam: 25%

Second midterm exam (5 quizzes): 25%

General performance and attendance: 10%

Final exam: 40%