Faculty of Engineering & Technology

Integration with Applications and Analytical Geometry (Math 2)

Information :

Course Code :	MTH 112	**Level**	: Undergraduate	**Course Hours :**	3.00- Hours

Department :	Faculty of Engineering & Technology

Instructor Information :

Title	Name	Office hours
Lecturer	Soliman Abdulkarim Alkhatib	15
Lecturer	Soliman Abdulkarim Alkhatib	15
Lecturer	Soliman Abdulkarim Alkhatib	15
Assistant Lecturer	Basma Magdy Ahmed Mohamed	12
Assistant Lecturer	Doaa Nabil Sayed Mohamed Elsayed Khodair	8
Assistant Lecturer	Doaa Nabil Sayed Mohamed Elsayed Khodair	8
Assistant Lecturer	TAREK ALI ABDALLAH TEAMA	12
Teaching Assistant	Mariam Mohamed Kamal Abdelaziz	1
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Description :

1) Calculus:
A) Indefinite integrals. properties and evaluation of definite and indefinite integrals of algebraic and transcendental functions. Fundamental Theorem of calculus.
B) Techniques of integration:
1) Integration by parts,,
2) Trigonometric substitutions,
3) Integration by partial fractions,
4) Quadratic expressions and substitutions,
5) Integration by reduction.
C) Applications of definite integral:
1) Area, 2) Volume, 3) Arc length of parametric functions.
4) Surface area of solid revolution,
2) Analytic Geometry:
A) lines and Planes in space. vector equations.
B) Definitions and properties of conic sections, parabola, hyperbola, and ellipse.
C) Translation and rotation of axes.
D) Quadric Surfaces. Ellipsoid, Hyperboloid, paraboloid.