Faculty of Engineering & Technology

Integration with Applications and Analytical Geometry

Information :

Course Code :	EMP112	**Level**	:	Undergraduate	**Course Hours :**	3.00- Hours

Department :	Faculty of Engineering & Technology

Instructor Information :

Title	Name	Office hours
Lecturer	Hany Abd El Ghaffar Abd El Aty El Deeb	2
Assistant Lecturer	Doaa Nabil Sayed Mohamed Elsayed Khodair	

Description :

Calculus: Indefinite integrals and Change of variables. Definitions, properties and evaluation of definite integrals. Techniques of integration: Integration by parts, Trigonometric integrals, Trigonometric substitutions, Integral of rational functions, Quadratic expressions and substitutions, Integration by reduction. Applications of definite integral: Area, Volume, Arc length in parametric, Surface area of solid revolution, Integrals in parametric functions, Polar coordinates and their applications.
Analytical Geometry: Definitions and properties of conic sections, Translation and rotation of axes, Planes and lines in space, Cylindrical and spherical coordinates, Surface of second degree.