INTERNATIONAL UNIVERSITY
FOR SCIENCE & TECHNOLOGY

الجَامِعَة الدّوليّة الخَاصّة للعُلومِ وَالتّكنُولوجيَا

601101 Calculus (1)

[3 cr., 3, 0] Limits, continuity, and derivative: Tangent and normal lines, local extreme, concavity. Related rates. Vertical and horizontal asymptotes. The mean value theorem of differentiation and its applications. The definite integral, the fundamental theorem of calculus, the indefinite integral. Applications of the definite integral : Area , solids of revolutions, volumes using cylindrical shells, arc length. The transcendental functions: The general exponential and Logarithmic functions. The hyperbolic functions, the inverse function of the trigonometric and hyperbolic function.