



العدد :

التاريخ : / / ٢٠

<b>Course number and name</b>	<b>ER103: Mathematics I</b>
<b>Credits and contact hours</b>	3 credits and 4 hours
<b>Course coordinator</b>	
<b>Textbook</b>	
<b>Course Information</b>	a. Prerequisites: High school math b. Required
<b>Topics to be covered</b>	–Methods of integration (integration by complete the square, integration of trigonometric substitutions), Method of integration (integration of partial fractions, integration of rational power, integration by parts, integration for odd and even powers of sine and cosine). –Applications of integration (definite integral, area under the curve, area between curves, volume, Length of the curve). –Matrices (properties of matrices, operations of matrices), Determinants (inverse of matrix), Solution of system of equations (solution of system of equations using Gramers' rule method). –Vectors in 3-space and in n-space, Linear dependence, the scalar and vector product and linear independence, Scalar and cross product, functions of several variables limit, continuity, and chain rules, Lagrange Multipliers.

قسم هندسة الكهربية والإلكترونية