



العدد :

التاريخ : ٢٠ / /

Course number and name	EE 4340: Power Systems Analysis I
Credits and contact hours	3 credits and 3 hours
Course coordinator	
Textbook	<p>a-Power Systems Analysis, 2nd edition, H. Sadaat, McGraw-Hill Higher Education, 2002.</p> <p>b-Elements of Power System Analysis, 4th ed., W. D. Stevenson, McGraw-Hill, New York, 1982</p> <p>c-Power System Analysis and Design, J. D. Glover and M. Sarma, PWS-Kent Publishing Co., Boston</p>
Course Information	<p>a. Prerequisites: EE 3340 Power Engineering</p> <p>c. Selective Elective</p>
Topics to be covered	<p>–History and present and future trends in the electric utility industry, Review, single and three-phase AC circuits, steady-state, Power transformer circuit models, including: 3-phase and 3-phase, 3-winding transformers, including the auto-transformer, per unit representations, including off-nominal turns ratios, phase shift in three-phase transformers</p> <p>–Electric power transmission lines, including design considerations, from the physical representation, determine the steady-state impedance and admittance parameters, develops steady-state two-port models of short, medium and long lines, solves the receiving end power flow problem, maximum power, voltage regulation, and line compensation methods.</p> <p>–The methods for developing the bus admittance matrix representation of the power system.</p>