Ministry of Higher Education
and Scinetific Research
Thi-Qar University
Collage of Engineering
Electrical and Electronic Engineering Dept

وزارة التعليم العالي والبحث العلمي
جامعة ذي قار كلية الهندسة
قسم الهندسة الكهربائية والألكترونية

العدد :

التاريخ :   /   /   ٢٠

Course number and name	EE 4100: Digital Signal Processing
Credits and contact hours	3 credits and 3 hours
Course coordinator	
Textbook	Digital Signal Processing: Principles, Algorithms, and Applications, Proakis and Manolakis, 4th Edition, Prentice Hall, 2007
Course Information	a. Prerequisites: EE 3100 Signals and Systems b. Selective Elective
Topics to be covered	– Course introduction and overview – Signals and systems (CT & DT), sampling process, correlation and random signals. – Frequency domain representation of DT signals, the z-transform, its properties and its inverse. – Fourier Transforms (DTFT, DFT, FFT), frequency response. – Introduction to digital filters and review of analog filter design. – Digital filter structures, FIR and IIR. – Design of digital filters (FIR and IIR) and design tradeoffs.