

المنهاج الخاص لامتحان الرصانه لطلبة شهادة الماجستير

اسم المادة	المصدر	المفردات	ت
Algorithms using C++	Book: Data Structures and Algorithms in C++ / Adam Drozdek / 4th edition	Required chapters: 2, 3, 4, 5, 6	1
Digital Electronics	Reference. "Electronic Devices and Circuit Theory", Robert Boylestad and Louis Nashelsky, 7th edition. Reference. "Electronic devices: electron flow version", Thomas L. Floyd, 9th edition, 2012.	Topics. Semiconductor zener diode and applications, (pnp and npn) transistors construction (biasing and applications), Logic Families (TTL, ECL, IIL), Operational amplifier and linear applications.	2
Computer Architecture	Morrise. M. Mano, Computer system architecture. 2007	Interested chapters: Ch9, Ch11, C12	3
Microprocessors	References: THE INTEL MICROPROCESSORS 8086/8088, 80186/80188, 80286, 80386, 80486, Pentium, Pentium Pro Processor, Pentium II, Pentium III, Pentium 4, and Core2 with 64-Bit Extensions, 8th edition, by: Barry B. Brey References The 8088 and 8086 Microprocessors: Programming, Interfacing, Software, Hardware, and Applications, 4th edition, by: Walter A. Triebel & Avtar Singh.	The internal architecture of 8086 microprocessors, Programming of 8086 microprocessors, Memory interfacing with 8086 microprocessors, I/O interfacing with 8086 microprocessors, and Interrupts organization within 8086 Microprocessors.	4
Computer Networks	Data communication and networking by behrouz a. forouzan 4th edition. 2007	<ol style="list-style-type: none"> 1. Ch. 2 network model 2. Ch. 3 Data and Signals 3. Ch. 6 Bandwidth utilization: Multiplexing and Spreading 4. Ch. 8 Switching 5. Ch. 12 Multiple Access 6. Ch. 13 Wired LANs: Ethernet 7. Ch. 15 Connecting LANs, Backbone Networks, and Virtual LANs 8. Ch. 19 Network Layer: Logical Addressing 9. Ch. 20 Network Layer: IP 10. Ch. 22 Network Layer: Delivery, Forwarding, and Routing 11. Ch. 23 Process-la-Process Delivery: UDp, TCp, and SCTP 	5

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Digital Signal Processing	<p>Digital Signal Processing Fundamentals and Applications Li Tan DeVry University Decatur, Georgia AMSTERDAM</p>	<p>Signal Sampling and Quantization Analog-to-digital conversion, Digital-to-Analog Conversion, and Quantization System Representation Using Its Impulse Response Bounded-in-and-Bounded-out Digital Convolution Discrete Fourier Transform and Signal Spectrum DFT, FFT Discrete Fourier Transform Formulas The z-Transform Properties of the z-Transform Inverse z-Transform Basic Filtering Types,</p>	6
Digital Image Processing	<p>Rafael C. Gonzalez, Richard E. Wood" Digital Image Processing" third edition.</p>	<p>*Introduction of Digital Image Processing:- Types of digital images. Basic relationship between pixels. Zooming and shrinking digital image. Image algebra. *Image enhancement:- Image enhancement in spatial domain. Image enhancement in frequency domain. *Image Filtering:- Filtering in spatial domain. Filtering in frequency domain. *Wavelet and multiresolution processing. *Image restoration. *Morphological image processing. - Hit or miss transformation. *Image segmentation. *Image compression.</p>	7
Internet Programming	<ul style="list-style-type: none"> • "PHP and MySQL for Dynamic Web Sites: Visual QuickPro Guide" by Larry • "HTML and CSS: Design and Build Websites" by Jon Duckett • "HTML, CSS & JavaScript in easy steps" Mike McGrath 	<p>Client-Side Web Development: HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), JavaScript Server-Side Web Development with PHP: Introduction to PHP, PHP Syntax and Basics, Database Management with MySQL (or MariaDB), Object-Oriented PHP</p>	8