



## **Material Covered in the M. Sc. Program Admission Exam – Fall 2013**

### **Microwaves and Optics:**

- David K. Cheng, Field and Wave Electromagnetics (2<sup>nd</sup> Edition) (Chapters 8, 9, 10).
- David M. Pozar, Microwave Engineering (3<sup>rd</sup> Edition) (Chapters 1, 2, 3, 4, 5, 6).
- Constantine Balanis, Antenna Theory: Analysis and Design (3<sup>rd</sup> Edition). (Chapters 1, 2, 3, 4, 5, 6).

### **Control Engineering:**

- K. Ogata, Modern Control Engineering, 2010 (Chapters 5 and 9).

### **Communications Engineering:**

- Simon Haykin, Communication Systems (4th Edition) (Chapters 4, 5, 6 (till Section 6.10 inclusive)).
- Alan V. Oppenheim, Alan S. Willsky and S. Hamid Nawab, Signals and Systems (2nd Edition) (Chapters 1, 2, 3, 4, 5, 7, 8).
- T. S. Rappaport, Wireless Communications: Principles and Practice (2<sup>nd</sup> Edition) (Sections 4.1, 4.2, 4.4, 4.5, 4.6).
- B. P. Lathi, Modern Digital and Analog Communication Systems (3<sup>rd</sup> Edition) (Chapter 4 (Amplitude Modulation), 5 (Angle Modulation), 6 and 7)

### **Computers Electronics and Communications:**

- Jean Warland, Communication Networks: A First Course, McGraw-Hill, 1998 (Chapters 1, 2, and 3).
- David A. Pattreson and John L. Hennessy, Morgan Kaufmann, Computer Architecture: A Quantitative Approach, CUFE Library code: CAR55 (4<sup>th</sup> edition) and CAR56 (3<sup>rd</sup> edition) (Appendix A).
- John L. Hennessy, David A. Patterson, Morgan Kaufmann, Computer Organization and Design: The Hardware/Software Interface, CUFE Library code: CAR32, CAR41 (Chapter 7).
- Lecture Notes at <http://www.cacs.louisiana.edu/~akk6481/elc303a>
- <http://www.cplusplus.com/doc/tutorial/> (Except advanced concepts and C++ standard library)
- Dorzek, Data Structures and Algorithms in C++ (Chapters 3, 4, 5).



- Lecture Notes at: <http://www.ahzahran.org/303B-Notes.zip>
- Morris Mano, Logic and computer design fundamentals (Chapters 3, 4, 5, 7).
- Barry B. Brey, The Intel Microprocessors: Architectures, Programming, and Interfacing, 6th Edition, Prentice Hall, 2003 (Chapters 1, 2, 3).

**Electronics:**

- Donald Neamen, Electronic Circuit Analysis and Design (Chapters: 1 – 7, 9 – 13, 16).