



Course Outline-CSE 380 (Digital Electronic)
Department of Computer Science & Engineering
East West University

Semester	: Spring 2013
Course Hours	: 3 (Theory) + 1(Lab) = 4
Theory Class Time	: T 10:10-1:10 (Sec 1)
Theory Class Room	: 615
Lab Class Time	: M 4:50-6:50 (Sec 1)
Lab Class Room	: 509 + 604
Instructor	: Md. Shamsujjoha (MSJ)
Office	: Room No 615, CSE Dept.
E-mail	: dishacse@yahoo.com , msj@ewubd.com
Office Hours	: MW 10:10-11:40, SMTWR 11:50-1:20, T 1.30-3.00,

Theory Syllabus:

Diode logic gates, transistor switches, transistor gates, MOS gates, Logic Families: TTL, ECL, IIL, and CMOS logic with operational details. Propagation delay, product and noise immunity. Open collector and High impedance gates. Electronic circuits for Flip-Flops, counters and register. Memory system, PLAs and PLDs. A/D and D/A converters with applications. S/H circuits. LED. LCD and optically coupled oscillators. Non-linear applications of OP-AMPs. Analog switches. Linear wave shaping: diode wave shaping techniques, clipping and clamping circuits. Comparator circuits, switching circuits. Pulse transformers, pulse transmission. Pulse generator - monostable, bistable and astable multivibrators. Schmitt trigger. Blocking oscillators and time-base circuits. Timing circuits. Simple voltage sweeps, linear current sweeps.

Labs Contents:

The course includes lab works based on theory taught in addition with a project.

Text Book:

- ❖ **Digital Integrated Electronics-** *“Herbert Taub and Donald Schilling”* McGraw-Hill. 2nd or later edition.

Reference Materials:

- ❖ **Integrated Electronics-** *“Jacob Millman and Christos C. Halkias”* McGraw-Hill. 2nd or later edition.
- ❖ **Electronic Devices and circuits-** *“Robert L. Boylestad and Louis Nashelsky”* Prentice Hall 3rd or later edition.

Exam Dates:

- ❖ 1st Midterm Exam – 10th Feb 2013, Sunday
- ❖ 2nd Midterm Exam – 10th Mar 2013, Sunday
- ❖ Final Exam – 21st Apr 2013, Sunday

Mark Distribution:

- | | |
|---------------------------------|-----|
| ❖ Class Participation | 5%, |
| ❖ Quiz | 10% |
| ❖ 1 st Mid Term Exam | 15% |
| ❖ 2 nd Mid Term Exam | 15% |
| ❖ Final Exam | 20% |
| ❖ Labs+ Project | 25% |
| ❖ Presentation and Report | 10% |

Grading Scheme:

- ❖ As per East West university policy

Special Instructions:

- ❖ Students are expected to attend all classes, labs and examinations.
- ❖ Students will not be allowed to enter into the classroom after 20 minutes of the starting time.
- ❖ If you miss more than two consecutive classes you will loose **1%** from the class participation marks.
- ❖ You **MUST** have at least 80% class attendance to sit for the final exam.
- ❖ All mobile phones **MUST** be turned to silent.
- ❖ There is zero tolerance for cheating at EWU. Students caught with cheat sheets in their possession, whether used or not used, &/or copying from cheat sheets, writing on the palm of hand, back of calculators, chairs or nearby walls, etc. would be treated as cheating in the exam hall. The only penalty for cheating is expulsion from EWU.
- ❖ For plagiarism, the grade will be automatically become zero for that exam/assignment.
- ❖ There will be **NO make-up** examinations **for Quiz & lab** Exam in any case. Make up exam can only be considered for the midterms in case of emergency, you **MUST** either inform me or the department secretary within 24 hours of the exam time. Failure to do so will mean that you are trying to take **UNFAIR** advantage and you will be automatically disqualified.