

**University of Denver**  
**Department of Electrical and Computer Engineering**

**ENCE 3250, HDL Modeling & Synthesis**

**COURSE ADMINISTRATION**

3 Quarter Hours

Spring Quarter 2009

**COURSE MEETING TIME:** Lecture MW (9-10:20) CMK-207

**PRE-REQUISITE:** Advanced Digital Design

**COURSE SUMMARY:**

Introduction to Hardware Design Language (HDL). Language syntax and synthesis. Applications related to digital system implementation are developed.

**COURSE INSTRUCTOR:**

Dr. Mohammad H. Mahoor  
e-mail: [mmahoor@du.edu](mailto:mmahoor@du.edu)

**Send me email with any technical questions. I will respond.**

Room 306, phone: (303) 871-3745

**Office hours:** TBD

**REQUIRED TEXTBOOK:**

HDL Programming Fundamentals: VHDL and Verilog, Nazieh M. Botros, Thomson  
Delmar Learning, 2006

**STUDENT PERFORMANCE EVALUATIONS:**

Exams	30%
Homework	15%
Laboratory Assignments	25%
Final Project	<u>30%</u>
	100%

**READING ASSIGNMENTS:**

Daily reading assignments are given for the weekly lecture. A review of the material prior to lecture is recommended to enhance the learning experience.

Additional information is also required to complete the laboratory experiments. It is up to you to come to the lab prepared with the material required to complete the assignment.

### **BLACKBOARD:**

Course support material is available on the internet using the blackboard system. Students are required to enroll and monitor the web site for information related to the course administration.

### **HOMEWORK ASSIGNMENTS:**

Homework assignments will be covered in class and returned as soon as possible. It is important to attempt the homework assignments. A hand copy of the assignment may be turned in at the beginning of laboratory. Please make sure the information is neat and easy to read. Sloppy assignments will be returned ungraded.

### **DESIGN PROJECTS and LABORATORY EXPERIMENTS:**

Laptops are required and will be loaded with the software required to complete the experiments. The design projects will be accomplished and demonstrated using the development boards provided to the teams.

### **EVALUATIONS:**

In class exercises will also be used to reinforce the course material in a group setting. Missed evaluations automatically result in a "0" or F/0 grade for that evaluation. If you are sick you need to show a doctor's note stating that in his/her opinion you were medically unable to take the evaluation. Athletes and other students with scheduled intramural activities may get to take major evaluations at other times by arranging with the instructor prior to the event. If you have a diagnosed learning or testing disability please let me know as soon as possible after the start of the quarter. Note: All evaluations will also be graded for proper English usage and spelling.

### **ASSESSMENT:**

Assessment is used to evaluate student performance, student attitudes, course effectiveness, and instructor effectiveness.

- Overall student performance is accomplished using traditional grades (A to F). Grading is criteria based and performed using a 0 to 100 point scale shown in the grading table shown on the previous page. A score of "100" represents total mastery of the concept(s) under evaluation and will earn an "A+." A "0" reflects the complete inability to demonstrate any level of mastery and will earn an "F." Once the points are awarded, a letter grade will be assigned according to the grading table. A score of "50" or less indicates insufficient mastery of the objectives. Fractions of 0.5 or greater on any evaluation are always rounded up. Grades are not compared, averaged, or curved.
- Course assessment occurs using course critiques, and instructor evaluation of selected student work.
- Student attitudes about the course will be assessed using the course critiques and appropriate attitude surveys.

- Instructor effectiveness will be measured using course critiques and exit surveys.

Equivalent Percentage	Letter Grade
100	A+
96	A
92	A-
88	B+
83	B
79	B-
75	C+
71	C
67	C-
63	D+
58	D
54	D-
50	F
46	F
42	F
38	F
33	F
29	F
25	F
21	F
17	F
13	F
8	F
4	F
0	F

**Table of Numeric Grades, Letter Grade and Equivalent**

**PROFESSIONALISM, ETHICS AND THE DU HONOR CODE:**

Engineering is a true profession and the only such profession acquired with only a Bachelor's degree. Ethics, honesty, and a Code of Conduct are a major part of our profession. Cheating and plagiarism cannot and will not be tolerated. You are encouraged to work together to solve homework and computer problems, however, outright copying of another's homework or computer solutions does not help you to understand the concepts and is also ethically and morally wrong and violates DU's honor code.