

ATENEO DE MANILA UNIVERSITY
 Loyola Schools
 Course Syllabus for 1st Semester, School Year 2013-2014

Department	ECCE	School	SOSE
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Course No.	EcE 201
Course Title	Advanced Digital Design
No. of Units	3

Course Description:

This is an advanced digital design system course. This course covers hardware programming language – HDL. This course covers an introduction to Field Programmable Gate Array (FPGA).

Course Objective/s:

To gain mastery of digital design system.
To have a hands-on knowledge of HDL and its applications.
To have a hands-on knowledge of FPGA and its applications.

Course Outline:

- I. Introduction to FPGA
- II. Introduction to hardware programming languages.
- III. Introduction to HDL
- IV. Behavioral modeling using HDL
- V. Sequential processing using HDL
- VI. HDL synthesis
- VII. HDL Case Studies and Applications
FPGA Applications

References:

Andrew Rushton, VHDL for Logic Synthesis, John Wiley & Sons, 1999.
 Andrew Rushton, Verilog for Logic Synthesis 2nd Ed., John Wiley & Sons 1999
 Stephen Brown & Zvonko Vranesic, Fundamentals of Digital Logic with Verilog Design,
 McGraw-Hill International Edition, 2008.
 M. Morris Mano, Digital Design Third Edition, Prentice Hall, Inc. 2002
www.altera.com
www.syncad.com
<http://www.simucad.com>
<http://www.orcad.com>
http://www.erc.msstate.edu/~reese/vhdl_synthesis
<http://www.gmvhdl.com/VHDL.html>

Course Requirement:

Class Work	90%
long tests, programming assignments, mini=projs, 1 project	
Class participation	10%
class conduct, recitation, board work, assignments and problem sets	

Grading System:

A	94+	A-	90-93+	F	below 59+
B+	84-89+	B	76-83+		
B-	70-75+	C	69+ below		

Other Matters:

CLASSROOM POLICIES

1. Class attendance is always checked (by the beadle).
2. Students are allowed 3 cuts. Exceeding the allowable number of cuts automatically merits a grade of W for the course.
3. Maintain an atmosphere of an academic classroom.

Mailing List

An optional mailing list (or e-group) shall be established for the course. Various materials may be distributed thru the mailing list. While membership in the mailing list is not a requirement of the course, students who do not join the mailing list are responsible for material(s) distributed thru the mailing list.

Consultation Info:

Tue 10:30 to 1:30 or Wed 10:30 to 1:30 or by appointment or via text or email

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