

Department of Electrical and Computer Engineering
 520.391 CAD Design of Digital VLSI Systems I
 Fall 2009

2009-2011 Catalog: An introductory course in which students, manually and through computer simulations, design digital CMOS integrated circuits and systems. The design flow covers transistor, physical, and behavioral level descriptions, using SPICE, Layout, and VerilogHD1 VLSI CAD tools. After design computer verification, students can fabricate and test their semester-long class projects. (3 credits)

Prerequisite(s): 520.142 Digital System Fundamentals
 520.216 Introduction to VLSI

Textbook: Digital Integrated Circuits, J. Rabaey, 2003, ISBN 0-13-090996-3

Course Objectives:

Topics Covered:

Class Schedule:

Contribution of Course to Meeting the Professional Component (credit hours):

Engineering Science	Engineering Science and Design
3	

Relationship of Course to Program Educational Outcomes (✓ those that apply):

	Apply mathematics, probability and statistics, basic science, and computer science
	Design and conduct experiments, analyze and interpret data
	Identify, formulate and solve electrical engineering problems
	Use technical skills and modern engineering tools to design to meet needs
	Communicate effectively and work on multidisciplinary teams
	Contemporary issues, ethical responsibilities, environmental, health, safety issues
	Engage in life-long learning

Updated April 1, 2009 by: Ralph Etienne-Cummings

