

# ECE 6095: Special Topics in Computer Engineering: VLSI Design Verification and Testing

Instructor: Prof. Mohammad Tehranipoor

<b>Date</b>	<b>Description</b>	<b>HW</b>	<b>Due (4pm)</b>
<b>Week 1 Sep. 1</b>	First Class, Introduction Test Process and Equipment		
<b>Week 2 Sep. 8</b>	Test Economics Logic and Fault Modeling	<b>HW1</b>	<b>Due in one week</b>
<b>Week 3 Sep. 15</b>	Logic and Fault Modeling Fault Simulation		
<b>Week 4 Sep. 22</b>	Combinational ATPG Basics Combinational ATPG Basics	<b>HW2</b>	<b>Due in two weeks</b>
<b>Week 5 Sep. 29</b>	Combinational ATPG ATPG Systems and Testability Measures		
<b>Week 6 Oct. 6</b>	ATPG Systems and Testability Measures Sequential Circuit ATPG	<b>HW3</b>	<b>Due in one week</b>
<b>Week 7 Oct. 13</b>	Discuss Final Project Physical Design and ATPG Tool	<b>HW4 Final Project</b>	<b>Due in two weeks</b>
<b>Week 8 Oct. 20</b>	Functional Testing Design-for-testability (DFT) I		
<b>Week 9 Nov. 3</b>	DFT II Delay Test		
<b>Week 10 Nov. 10</b>	Delay Test IDDQ Current Testing	<b>HW5 Final project quick update</b>	<b>Due in two weeks</b>
<b>Week 11 Nov. 17</b>	Memory Testing Memory Testing		
<b>Break</b>	Thanksgiving break		
<b>Week 12 Dec. 1</b>	<b>Exam</b> Project Presentations	<b>HW6</b>	<b>Due in two weeks</b>
<b>Week 13 Dec. 8</b>	Built-In Self-Test (BIST) I BIST II		
<b>Discussion Class</b>	Boundary Scan, Nanotechnology problems–Research Opportunities		
<b>Dec. 20</b>	<b>Project Demonstration</b>		

**First class: Sep. 1, 2009**

**# Quizzes: 2-3**

**# HWs: 5-6**

**Last class: Dec. 8, 2009**

**Office Hours: Tu 2-3pm**