

**ELE 373 Advanced Digital Architecture and Design  
Spring 2009**

**Tentative Syllabus**

<b>Week</b>	<b>Topic</b>	<b>Reading</b>
1	Logic design fundamentals (1)	notes
2	Logic design fundamentals (2)	notes
3	Programmable logic devices	Appendix A, notes
4	Basic VHDL: code structure, operators and attributes, data types	1-4
5	Basic VHDL: concurrent and sequential code, signals and variables	5-6
6	Basic VHDL: signals and variables	7
7	Design with SPLDs and ispLever	Notes, documentation
8	Project: Adders	Notes, documentation
9	Project: State machines	8
10	Project: Parallel adder with accumulator	notes
11	Design with UP2 and Quartus II	Notes, documentation
12	Project: Multiplication and division algorithms	Notes
13	Project: Parallel multiplier with accumulator	12
14	Project: FIR filter	12