

## CDA 6214 Structured VLSI Design

**Credits:** 3 credits

**Text book, title, author, and year:** Verilog HDL by Samil Palnetkar, Verilog by Example: A Concise Introduction for FPGA Design

**Reference materials:** N/A

**Specific course information:**

**Catalog description:** Use of commercial, state-of-the-art computer-aided design software for structured, testable design synthesis for CMOS VLSI.

**Prerequisites:** Logic Design, graduate level

**Specific goals for the course:** The purpose of this course is to develop an understanding of digital VLSI systems, and used CAD tools for Digital VLSI Design. This course will cover FPGA architecture, digital design with Verilog, FPGA implementation of digital system, simulation and synthesis. Students are expected to use Verilog based simulators and synthesizers in this course. Students will have a number of hands-on experiments and design assignments. Tools for VLSI layout will also be discussed and used based on availability.

**Brief list of topics to be covered:** To be determined