Very-Large-Scale Integration - Curriculum

Sl.No	Topic
1	**Orientation**
1.1	Introduction
1.2	Overview of VLSI course
1.3	Evolution if VLSI
1.4	VLSI Design Flow
2	**Introduction to Digital World**
2.1	Introduction, Number System
2.2	Logic Design
2.3	Boolean Algebra
2.4	Combinational Circuits
2.5	More Combinational Circuits
2.6	Sequential Circuits
2.7	Switch Debounce
2.8	Timing Analysis
3	**Introduction to Semiconductors**
3.1	Semiconductors, BJT, FET
4	**Introduction to FPGA**
4.1	Introduction and Architecture
5	**Introduction to Digital Design with Verilog HDL**
5.1	Typical Design Flow
5.2	Hierarchy Modelling
5.3	Basic Concepts
5.4	Modules and Ports
5.5	Gate-Level Modelling
5.6	Dataflow Modelling
5.7	Behavioural Modelling
5.8	Combinational circuits design
5.9	"Introduction to CMOS and Sequential circuits design"

Very-Large-Scale Integration - Curriculum

PROJECT	
1	Basic circuits written in Verilog HDL, simulated and implemented on the FPGA
2	Digital Design
3	Image Processing on FPGA
4	UART communication to print a single character
5	FSM Designs-Mealy & Moore Machines and Up Down Counter