INSTRUCTOR	YEAR	SEMESTER	COURSE NUMBER	교과목명 (COURSE NAME)	SECTION
KIM,JAE-HO	2015	Spring	EE30396	LOGIC CIRCUITS	058

Instructor's Infomation	/
Office Hours	화 목 12:00~1:00PM

1. Course Objectives & Description

1) Course Objectives

Learning and understanding basic knowledge for designing digital logic circuit
Learning Boolean algebra and understanding applications to combinational logic circuit
Learning combinational logic gates and designing combinational logic circuit
Learning and developing abilities of designing sequential circuit and finite state machine
Learning programmable logic device and understanding applications to designing logic circuit

2) Course Description

The aim of this lecture is; 1) To provide a basic understanding of math knowlegde, i.e., Boolean algebra, 2) This is applied to simplification of a logic design, 3) Combination and Sequential logic design will be explored with several example design, 4) Basic components of logic design will be covered. 5) After learning all basic knowledge, digital watch design will be taught for increasing the design skill of students.
* 장애학생의 경우 장애학습지원센터와 강의 및 과제에 대한 사전 협의가 가능합니다.

2. Required TextBook

Introduction to Logic Design, Alan B. Marcovitz, McGraw Hill, 3rd edition, 2010.

3. Requirements & Grading

mid 40% final 50% report 10%
* 장애학생의 경우 시험시간의 연장이 가능하며, 대필이나 컴퓨터를 활용하여 시험에 응할 수 있습니다.

4. Schedule

Week No	Topics and Activities	Assignments & Other Instructions
Week 1	[Orientation and Education on Academic Misbehavior(e.g. Cheating, Plagiarism) and Safety Education on Experiment and Practice] Digital and analog	
Week 2	Number system	
Week 3	Boolean algebrta 1	
Week 4	Boolean algebrta 2	
Week 5	Simplification of logic 1	
Week 6	Simplification of logic 2	
Week 7	Combinational logic design example	
Week 8	Mid term exam	
Week 9	Sequental cirsuit design, Latch and Flip/Flop	
Week10	Mealey and Moore machines	
Week11	Sequential cirsuit design 1	
Week12	Sequential cirsuit design 2	
Week13	FPGA design & VHDL	
Week14	Digital watch design 1	

Week15	Digital watch design 2	
Week16	Fianl exam	

5. 참고문헌 (References)

M. Morris Mano and Charles R. Kime, Logic and Computer Design Fundamentals, 3rd