2016   1

Course Title	( )		( ) Semiconductor Fabrication Processes

( ) Lecturer	( )	/ / (Course No. /)	006147/ /3
(/HP) Contact No.		/ (Class Hour/Venue)	13:30-15:00 / 109
(Course Prerequisite)		(Target Student)	4
E-mail (E-mail Address)		/Office Hour (Office/Office Hour)	812 / 15:00-17:00

(Objectives)	. , , (crystal growth, cleaning, lithography, oxidation, diffusion, ion implantation, thin film deposition, etching, back-end processing) , , . Term Project .
CQI (Continuous Quality Improvement Plan)	- update: 1 - Flipped learning :
(Text book & References)	- Plummer et al., "Silicon VLSI Technology: Fundamentals, Practice, and Modeling", Prentice Hall (2000) - Xiao, "Introduction to Semiconductor Manufacturing Technology", Prentice Hall (2001) - , (2014)
(Assignment book)	- "Silicon Run" VTR tape ( ) - Doering and Nishi(ed), "Handbook of Semiconductor Manufacturing Technology" (2007)
(Lecture Methods)	- LCD projector . . - - . " " . - , , , " "

(Assignment)	- .
	  , " " .
	- .
	                , , 0 .
	- Term project .
	                                                        .

(Reading Materials)	- chapter
(Course Grading)	[ ] (%) : 30, (%) : 40, (%) : 20, (%) : 10, - : 4/23( ), : 6/18( ) - F .
(Etc.)	- . - - -

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(Week)	(Course Contents)	(Etc.)	
1	Introduction and Historical Perspective		
2	Modern CMOS Technology		
3	CMOS Process Flow		
4	Fabrication and Basic Properties of Silicon Wafers		
5	Clean Rooms, Wafer Cleaning, and Gettering		
6	Lithography		
7	Thermal Oxidation and the Si/SiO2 Interface		
8			

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(Week)	(Course Contents)	(Etc.)	
9	Dopant Diffusion		
10	Ion Implantation		
11	Thin Film Deposition I		
12	Thin Film Deposition II		
13	Etching		
14	Team Project Presentation		
15	Interconnect		
16			

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	Students who require special assistance (including special needs students) may contact their professors during the first week of the semester to discuss issues related to attendance, lectures, assignments and exams and request learning assistance.
1 (Additional Guide1)	
2 (Additional Guide2)	. . o . - ' 0' . - term paper ' F' . o . o (, ,) . o .