

FI587 Processing and Characterization of Semiconductor Materials

Module name:	Processing and Characterization of Semiconductor Materials	
Module level, if applicable:	Undergraduate	
Code:	FI587	
Sub-heading, if applicable:	-	
Classes, if applicable:	-	
Semester:	7 th	
Module coordinator:	Dadi Rusdiana	
Lecturer(s):	Dadi Rusdiana	
Language:	Bahasa Indonesia	
Classification within the curriculum:	Elective Course	
Type of teaching	Contact hours per week during the semester	Class Size
1. Lecture (expository method, discussion, exercises, experiment, and presentation) 2. Structured activities (assignments based on conceptual, contextual, and problem-solving approaches) 3. Self-study (reading literature)	2 hours 30 minutes	20
Workload:	The total workload is 136 hours/8160 minutes (4.8 ECTS) per semester, consisting of 35 hours/2100 minutes lectures (1.24 ECTS), 42 hours/2520 minutes structured activities (1.48 ECTS) and 42 hours/2520 minutes self-study (1.71 ECTS) per week for 14 weeks, 17 hours/1020 minutes for two exams (0.6 ECTS).	
Credit points:	4.8 ECTS	
Pre-requisites course(s):	FI560 Solid State Physics	
Course Learning Outcomes (CLO):	After taking this course the students have ability to: CLO1. Explain the technique of making semiconductor materials and their characterization both conceptually and procedurally CLO2. Develop and apply it in accordance with the development of science and technology.	
Content:	Techniques for making bulk targets, techniques for making thin layers of semiconductors, techniques for making masks and etchings in the lithography process, thin film characterization methods such as X-ray diffraction, scanning electron microscopy, Ultraviolet Visible spectroscopy, and measurement of electrical properties/Hall effect.	

