



MODULE HANDBOOK DESCRIPTION

Module designation	Signal and System	
Code	FBS2229	
Semester(s) in which the module is taught	4 / second year	
Person responsible for the module	Syafaruddin Ch., ST., MT. Budi Darmawan, ST., M.Eng., A. Sjamsjiar Rachman, ST, MT. Made Sutha Yadnya, ST, MT.	
Language	Indonesian	
Relation to curriculum	Compulsory	
Teaching methods	Lecture, case base method.	
Work load (include contact hours self-study hours)	<p>Contact minutes every week each week of the 16 weeks / semester:</p> <ul style="list-style-type: none"> • Lectures:3 x50 minutes • Exercises and Assignments: 3 x 60 minutes • Private study:3 x 60 minutes. <p>Total study hours = 8 hours 30 minutes/week</p>	
Credit points	3 (~ 4.8 ECTS)	
Required and recommended prerequisites for joining the module	<ul style="list-style-type: none"> - Engineering Mathematics (FBS2120) - Electrical Circuit I (FBS1213) 	
Module objectives intended learning outcomes	<ol style="list-style-type: none"> 1. Students are able to understand the concept of continuous-time signals and systems and the concept of discrete-time signals and systems 2. Students are able to explain signal characteristics as well as system representations and models 3. Students are able to represent and analyze the time domain of continuous and discrete time systems 	<p>PLO2</p> <p>PLO2, PLO4</p> <p>PLO2, PLO3</p>

Content	<ol style="list-style-type: none"> 1. Introduction to the concept of signals and systems, 2. Types of Signals and Systems, 3. Signal Characteristics, 4. Type and performance of the system, 5. Time Domain Representation of Continuous time signal, 6. Time Domain Analysis of the Continuous Time System, 7. Time Domain Representation of Discrete time signal, 8. Time Domain Analysis Discrete time system
Examination forms	<ul style="list-style-type: none"> - Multiple choice examination and Essay, - Case study Assignment
Study and examination requirements	<p>The final grade in the module is composed of:</p> <ol style="list-style-type: none"> a. Meeting score =10% b. Exercise Report/ Homework / Portfolio = 20% c. Middle Test = 35 % d. Final Test = 35 %
Reading list	<ol style="list-style-type: none"> 1. Carlson, 1998, "Signal and Linear System Analysis" John Wiley & Sons. Inc 2. Kamen, E.& Heck, B., 2000, "Fundamentals of Signals and Systems New York: Prentice Hall". 3. Sons, Alan, V.O, "Signals and Systems Prentice Hall Inc" 4. Ferdinando, H., "Dasar-dasar Sinyal dan Sistem", Penerbit ANDI, 2010