



MODULE HANDBOOK DESCRIPTION

Module designation	Satellite Communication	
Code	FBC0004	
Semester(s) in which the module is taught	7 / Fourth year	
Person responsible for the module	Djul Fikry B., ST., MT.	
Language	Indonesian	
Relation to curriculum	Free elective for Telecommunication Engineering	
Teaching methods	Lectures, small group discussion.	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester: <ul style="list-style-type: none"> • Lectures: 2 x 50 minutes • Exercises and Assignments: 2 x 60 minutes • Private study: 2 x 60 minutes. Total study hours = 5 hours 40 minutes/week	
Credit points	2 SKS (~ 3.2 ECTS)	
Required and recommended prerequisites for joining the module	- Basic Telecommunications (FBS1217)	
Module objectives/intended learning outcomes	1. Students are able to analyse the satellite function, satellite orbit, GPS satellite, longitude & latitude, satellite networking, Global Beam & Multi Beam, and VSAT.	PLO3
	2. Students are able to plan location based tracking with satellite.	PLO4
	3. Students are able to compare satellite communication frequency tracking, global and multi-beam components, and GPS satellites through simulations.	PLO5

Content	<ol style="list-style-type: none"> 1. Satellite Function, 2. Satellite Orbit, 3. Longitude & Latitude, 4. Global Positioning Satellite, 5. Satellite Networking, 6. Global Beam & Multi Beam, 7. Multiple Acces Communication, 8. VSAT.
Examination forms	<ul style="list-style-type: none"> - Written case study, - Midterm and final test.
Study and examination requirements	<p>The final grade in the module is composed of:</p> <ol style="list-style-type: none"> 1. Case I assessment: 15% 2. Case II assessment: 15% 3. Midterm assessment: 35% 4. Final assessment: 35% <p>Students must have a final grade of 65% or higher to pass</p>
Reading list	<ol style="list-style-type: none"> 1. Gary D. Gordon, Walter L. Morgan, 1993, Principles of Communications Satellites. 2. Roger Cochetti, 2013, Mobile Satellite Communications Handbook, Second Edition. 3. Bruce R. Elbert, 2003, The Satellite Communication Applications Handbook, Second Edition.