

UNDERGRADUATE PROGRAM IN COMPUTER SCIENCE  
DEPARTMENT OF COMPUTER SCIENCE AND ELECTRONICS  
FACULTY OF MATHEMATICS AND NATURAL SCIENCES  
UNIVERSITAS GADJAH MADA

Module name	<b>Satelite Development</b>				
Module level	Undergraduate				
Code	MII-4611				
Courses (if applicable)	<b>Satelite Development</b>				
Semester	Spring (Even)				
Contact person	Dr. Tri Kuntoro Priyambodo, M.Sc.				
Lecturer	Dr. Tri Kuntoro Priyambodo, M.Sc.				
Language	Bahasa Indonesia and English				
Relation to curriculum	Undergraduate degree program, Elective, 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> , 8 <sup>th</sup> semester International undergraduate program, Elective, 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> , 8 <sup>th</sup> semester				
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students 2. International undergraduate program: lectures, < 30 students				
Workload	1. Lectures: 3 x 50 = 150 (2.5 hours) minutes per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Private study: 3 x 60 = 180 minutes (3 hours) per week.				
Credit points	3 credit points (sks).				
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.				
Recommended prerequisites	None				
Learning outcomes and their corresponding PLOs	(LO-1) Ability to explain basic concepts of satellite system in general (LO-2) Ability to explain parts of Satellite system (LO-3) Ability to explain mathematical models of satellite track and orbit. (LO-4) Ability to explain satellite specification for various applications. (LO-5) Ability to analyze satellites' requirements. (LO-6) Ability to design and to develop satellite up to reviewing missions' designs.				
Content	Satellite technology has been widely known, and used not only as a subject in schools but also in professional businesses. This subject is meant to give basic knowledge of satellite technologies for computer science students. This subject is enriched by books, and academic papers and journals about satellite developments.				
Study and examination requirements and forms of examination	Mid-terms examination and Final examination.				
Media employed	LCD, blackboard, websites, and e-learning.				
Assessments and Evaluation	<b>LO</b>	<b>Metode</b>	<b>Jenis</b>	<b>Persentase Penilaian</b>	<b>Jumlah</b>
	1	Quiz 1	Formative	3%	8%

		Individual Exercise 1	Summative	5%	
	2	Individual Exercise 2	Formative	5%	15%
		Midterm Exam	Summative	10%	
	3	Quiz 2	Formative	3%	13%
		<u>Individual Exercise 3</u>	Formative	10%	
	4	Group Exercise 1	Formative	15%	25%
		Midterm Exam	Summative	10%	
	5	Quiz 3	Formative	4%	14%
		Final Exam	Summative	10%	
	6	Group Exercise 2	Formative	15%	25%
		Final Exam	Summative	10%	
					100%
Reading List	<p>WA: Maini, A.K., dan Agrwal, V.,2011, Satellite Technology: Principles and Applications, 2nd Edition, John Wiley &amp; Sons Ltd.</p> <p>AA: Sandau, R., Roser, H., dan Valenzuela, A. (eds), 2007, SmallSatellites for Earth Observation, Wissenschaft und Technik Verlag, Berlin.</p> <p>AB: Priyambodo, T.K., Putra, A.E., Azvial, M., Putro, R.E., Prabowo, G.S., Gamantyo, Nugroho, A., Kuswadi, S., dan Pitowarno, E., 2012, INSPIRE liNUSAT-1: Mission Design Review, Dirjen Dikti - Kemendikbud, Jakarta.</p>				