

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

Module name	Introduction to Electronics and Instrumentation	
Module level	Undergraduate	
Code	MII-1803	
Courses (if applicable)	Introduction to Electronics and Instrumentation	
Semester	odd (Ganjil)	
Contact person	Nia Gella Augoestien, S.Si., M.Cs.,	
Lecturer	Nia Gella Augoestien, S.Si., M.Cs., Lukman Awaludin, S.Si, M.Cs., Panggih Basuki, M.Si.,	
Language	Bahasa Indonesia	
Relation to curriculum	Undergraduate degree program, mandatory, 1 st semester	
Type of teaching, contact hours	Lectures, < 40 students, 1 hours	
Workload	<ol style="list-style-type: none"> 1. Lectures: 2 x 50 = 100 minutes (1 hour and 40 minutes) per week. 2. Exercises and Assignments: 2 x 50 = 100 minutes (1 hour and 40 minutes) per week. 3. Private study: 2 x 60 = 120 minutes (2 hours) per week. 	
Credit points	2 credit points (sks)	
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the final exams.	
Mandatory prerequisites	-	
Learning outcomes and their corresponding PLOs	<p>After completing this module, a student is expected to:</p> <p>CO-1 Understanding the basic knowledge and concepts of electronics</p> <p>CO-2 Understanding the basic knowledge and concepts of instrumentation</p> <p>CO-3 Understanding the concepts of computer, network and how to use it to support developing of electronics and instrumentation device.</p> <p>CO-4 Understanding the basic knowledge and concepts of signal and system in electronic and instrumentation field</p> <p>CO-5 Understanding various implementation of electronic and instrumentation on control system and robotic.</p>	<p>PLO2</p> <p>PLO2</p> <p>PLO3</p> <p>PLO2</p> <p>PLO4</p>
Content	General description about electronics, Instrumentation, computer and networking, signal and system, control system and robotic.	
Study and examination	<ul style="list-style-type: none"> • Assignments • Mid-term examination 	

requirements and forms of examination	<ul style="list-style-type: none"> • Final examination
Media employed	LCD, whiteboard, websites (eLisa).
Assessments and Evaluation	CO-1 Midterm exam, assignment (total:22,5 %) CO-2 Midterm exam, assignment (total: 30%) CO-3 Midterm exam, Final exam, assignment (total: 17,5%) CO-4 Final exam(total: 15%) CO-5 Final exam (total: 15%)
Reading List	<ol style="list-style-type: none"> 1. Frenzel, L. E., 2010,Electronics Explained, Newnes. 2. Albertos, P. dan Mareels, I, 2010,Feedback and Control for Everyone, Springer.