



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Computer Science and Electronics

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Bachelor in Electronics and Instrumentation

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MODULE HANDBOOK

Module name	Experiment on Analog Electronics																					
Module level	Undergraduate																					
Code	MII-2309																					
Courses (if applicable)	Experiment on Analog Electronics																					
Semester	Fall (Odd)																					
Contact person	Muhammad Auzan, S.Si., M.Cs.																					
Lecturer	Muhammad Auzan, S.Si., M.Cs.																					
Language	Bahasa Indonesia & English																					
Relation to curriculum	1. Undergraduate degree program, compulsory, 3th semester. 2. International undergraduate program, compulsory, 3th semester.																					
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 40 students, 2. International undergraduate program: lectures, < 30 students.																					
Workload	1. Lectures: 2 x 50 = 100 minutes (1 hours 10 menit) per week. 2. Exercises and Assignments: 2 x 50 = 100 minutes per week. 3. Private study: 2 x 50 = 100 minutes 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 exams.																					
Recommended prerequisites	-																					
Learning outcomes (course outcomes) and their corresponding PLOs	<p>After completing this module, a student is expected to:</p> <p>CO1 Understand and be able to practice the use of measuring instruments electronics scale</p> <p>CO2 Understand and understand the character of active electronic components</p> <p>CO3 Mengerti dan dapat menganalisa watak sistem elektronika</p> <table border="1"> <thead> <tr> <th colspan="2">PLO</th><th>CO 1</th><th>CO 2</th><th>CO 3</th></tr> </thead> <tbody> <tr> <td rowspan="3">Program Learning Outcome</td><td>PLO1</td><td></td><td></td><td></td></tr> <tr> <td>PLO2</td><td></td><td></td><td></td></tr> <tr> <td>PLO3</td><td>√</td><td>√</td><td>√</td></tr> </tbody> </table>				PLO		CO 1	CO 2	CO 3	Program Learning Outcome	PLO1				PLO2				PLO3	√	√	√
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	<table><tr><td>(PLO)</td><td>PLO4</td><td></td><td></td><td></td></tr><tr><td></td><td>PLO5</td><td></td><td></td><td></td></tr></table>	(PLO)	PLO4					PLO5																												
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Contents	<div>1. Oscilloscope</div> <div>2. Diode Characteristics</div> <div>3. Power Supply</div> <div>4. Transistor</div> <div>5. Power amplifier</div> <div>6. Filter</div> <div>7. Op-Amp</div> <div>8. MOSFET, SCR, TRIAC</div>																																			
Study and examination requirements and forms of examination	<div>The evaluation is done in 3 forms, namely:</div> <div><div>1. Trial, either midterm or semester test,</div><div>2. Four tasks, individual assignments to be completed within a certain timeframe, and</div><div>3. Two quizzes, held on face-to-face, once before midterm exam and once after midterm exam, with a short answer form.</div></div> <div>Assessment is done using benchmark assessment, with the aim of measuring the level of student understanding related to the target and class rank.</div>																																			
Media employed	LCD, blackboard, and websites.																																			
Assessments and Evaluation	<table><tr><th>Type</th><th>Percentage</th><th>√</th><th>√</th><th>√</th></tr><tr><td>Quiz</td><td>5 %</td><td>√</td><td>√</td><td>√</td></tr><tr><td>Individual Task</td><td>25 %</td><td>√</td><td>√</td><td>√</td></tr><tr><td>Group Task</td><td>0</td><td></td><td></td><td></td></tr><tr><td>Midterm Exam</td><td>40 %</td><td>√</td><td>√</td><td>√</td></tr><tr><td>Final Exam</td><td>30 %</td><td>√</td><td>√</td><td>√</td></tr><tr><td>Total</td><td>100%</td><td></td><td></td><td></td></tr></table>	Type	Percentage	√	√	√	Quiz	5 %	√	√	√	Individual Task	25 %	√	√	√	Group Task	0				Midterm Exam	40 %	√	√	√	Final Exam	30 %	√	√	√	Total	100%			
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Reading List	<div>[1] Malvino, Albert & Bates, David J. 2015: Electronic Principles,8th Edition, McGraw-Hill, New York.</div> <div>[2] Schultz, Mitchel E. 2007: Grob’s Basic Electronics, 10th Edition, McGraw-Hill, New York.</div> <div>[3] Bishop, Owen, 2006: Electronics, 2nd Edition , Elsevier, Tokyo</div>																																			