

## Module Handbook

Module Name:	Instrumentation System
Module Level:	Bachelor
Abbreviation, if applicable:	FI 2271
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	second year
Module coordinator(s):	
Lecturer(s):	
Language:	Bahasa Indonesia
Classification within the curriculum:	<del>General Studies</del> / Major Subject / Elective Studies
Teaching format / class hours per week during the semester:	3 hours lectures
Workload:	3hours lectures, 3 hours tutorial and structured activities, 3 hours individual study, per week, 16 weeks per semester, and total 144 hours a semester
Credit Points:	3
Requirements:	- Electronics
Learning goals/competencies:	<p>Knowledge</p> <ul style="list-style-type: none"> <li>– Demonstrate knowledge of basic principle of Instrumentation Systemsics, fluid, elasticity and oscilation, and thermodynamics.</li> </ul> <p>Skills</p> <ul style="list-style-type: none"> <li>– To demonstrate an ability to plan and prepare practical laboratory investigations</li> <li>– To demonstrate an ability to conduct experiments and record data using a variety of suitable</li> <li>– To demonstrate an ability to conduct experiment in a responsible and compliance way to the relevant health and safety regulations</li> </ul> <p>Competence</p> <ul style="list-style-type: none"> <li>– Ability to design and develop a instrumentation system for physical system.</li> </ul>
Content:	Power Supply; Data Communication; Input Device, Signal Processing and Ouput Device wich will be deepened in the task of research based learning
Study/exam achievements:	Students are considered to be competent and pass if at least get 50% of maximum mark of the exams, homework, laboratory work, and research based learning.
Forms of Media:	Slides and LCD projectors, blackboards, lab.
Literature:	<ol style="list-style-type: none"> <li>1. Sutrisno, Seri Elektronika Lanjut</li> <li>2. J. Fraden (2003) Handbook of Modern Sensor</li> <li>3. Waldemar Nawrocki (2005) Measurements Systems and Sensor</li> <li>4. Howard V. Malmstadt (1974) Optimization of Electronic Measurements</li> </ol>
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