

## MODULE HANDBOOK

Course:	<b>Research Methods in Physics</b>
Module Level:	Undergraduate
Code:	FIK307
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/Term:	6 <sup>th</sup> / third year
Module Coordinator:	Dr. Suryani Dyah Astuti S.Si.,M.Si
Lecturer(s):	Dr. Suryani Dyah Astuti S.Si.,M.Si and Febdian Rusydi,PhD
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course / <del>Elective Course</del>
Teaching format / class hours per week during semester:	2 hours of lectures (50 min / hour)
Workload:	2 hours of lectures, 2 hours of structural activities, 2 hours of individual study, 13 weeks per semester, and total of 78 hours per semester ~ 2.6 ECTS*
Credit Points:	2
Requirement(s):	-
Learning Goals/Competencies:	<p><b>General Competence (Knowledge):</b> Students are able to analyze based on experiments physics.</p> <p><b>Specific Competence :</b></p> <ol style="list-style-type: none"> <li>1. Students understand the reason of creating certain graphics type in physics research.</li> <li>2. Students are able to use error analysis in presenting research data.</li> <li>3. Students are able to know data comparison method from other experiment and process the data.</li> <li>4. Students are able to match data least square method, instrumentation and analytical data experiment from physics fields.</li> </ol>
Contents:	This course is about how to create graphics,error analysis,distribution, comparison from other experiment method, data processing, matching data with least square method, instrumentation and analytical data experiment from physics fields
Soft Skill Attribute	Effort and ethic
Study/Exam Achievements:	<p>Final score is calculated as follow: 15% assignment 1 + 15% assignment 2 + 35% midterm exam + 35% final exam</p> <p>Final index is defined as follow:</p> <p>A : 75 – 100  AB : 70 - 74.99  B : 65 - 69.99  BC : 60 - 64.99  C : 55 - 59.99  D : 40 - 54.99  E : 0 - 39.99</p>
Forms of Media:	Powerpoint slides, LCD projectors and whiteboards

Learning Methods:	Lectures and assessments
Literature(s):	1. Bevington, P.R., 1969, <i>Data Prediction and Error Analysis for Physical Sciences</i> , McGraw-Hill, New York.
Notes:	*Total ECTS = {(total hours workload x 50min)/60 min}/25 hours each <b>ECTS is equals with 25 hours</b>