TEACHING INSTRUCTIONAL DESIGN (BRP)

COURSE

INTERNSHIP

by

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Depok
November 2016

PREFACE

Teaching Instructional Design (BRP) for the Internship course is designed to be used as a reference in following the Internship course which contains the teaching plans for 1 whole semester for students taking the Undergraduate Physics Program at FMIPA UI, specifically in the 7th semester while also taking a concentration in Instrumentation Physics. This course requires students to have taken at the very least, 64 credits. The Internship course is a conversion of the work students has done throughout their internship, primarily doing work in the instrumentational field under a teacher or professional in the institution they work in, into 2 credits. This course can also be integrated with the Undergraduate Thesis course. This BRP is hoped to be used as a standard for the teaching process for students and teachers as well as the people who want to study this specific course.

Depok, 28th of November 2016

Drs. Sastra Kusuma Wijaya, Ph.D

General Information

1.	Name of Program / Study Level	:	Physics / Undergraduate
2.	Course Name	:	Internship
3.	Course Code	:	SCFI604742
4.	Semester	:	7
5.	Credit	:	2 credits
6.	Teaching Method(s)	:	Students work and study independently under a teacher or field mentor
7.	Prerequisite course(s)	:	Has taken 64 credits
8.	Requisite for course(s)	:	-
9.	Integration Between Other Courses	:	Undergraduate Thesis
10.	Lecturer(s)	:	Drs. Sastra Kusuma Wijaya Ph.D.
11.	Course Description	:	This internship course is a form of conversion into credits from the result of students having taken in an internship, working or instrument-based research projects under a teacher or a professional in a certain institution. There are no specific prerequisite courses to take this course, but students are required to have passed 64 credits throughout their study. This course can be taken in the 7th term and can also be integrated with the Undergraduate Thesis course.

I. Course Learning Outcome (CLO) and Sub-CLOs

A. CLO

After finishing this course, students are able to tackle Physic's based problems experimentally, numerically, or analytically and analyze the problem comprehensively. (C4, A5, P4)). (ELO(s) 3, 5, 6, 7, 8)

B. Sub-CLOs

1. Able to determine the characteristics of the problem faced in the research Physic's based research being taken. (C3)
2. Able to make a study review towards the Physic's based problems being faced. (C3)
3. Able to envisage the research workload that has to be done to reach the final goal. (C3)
4. Able to be responsible while working on the lab research based on the rules that apply. (A2)
5. Able to receive and accept input from the teacher or professionals in the research field being faced. (A5)
6. Able to operate that device or programs related to the research topic. (P3)
7. Able to solve problems faced throughout the research. (P4)

II. Teaching Plan

Week	Sub-CLO	Study Materials	Teaching Method	Time Required	Learning Experiences (*O-E-F)	Sub-CLO Weighton Course (%)	Sub-CLO Achievement Indicator	References
1	**Introduction towards the contract of the course**							
2-16	1-7	• Determine the work for the Internship • Designing the Workflow • Preparing for Research • Execution of Internship • Data Analysis • Final Report of Internship	Students study independently under a teacher or a field mentor	Work from institution: 170 minutes / week, for 16 weeks Individual Task: 240 minutes / week, for 16 weeks	15% O, 70% L, 15% U	8.33	Able to finish problems face throughout the internship with the plans that has been made.	Articles and Journals related to the topic

*) O : Orientation
E : Discussion
F : Feedback

References:

1. Articles and Journals related to the topic

III. Assignment Design

Week	Assignment Name	Sub-CLO	Assignments	Scopes	Working Procedure	Deadline	Outcome
1-16	Internship	1-7	Internship	Internship activities done in the field under a certain institution	Individual or group tasks under a teacher or a field mentor from a certain institution	1 semester	• Internship Report • Logbook throughout the Internship • Attendance throughout the Internship
16	Presentation	1-7	Result of Internship	Presents the result of the internship that has been taken and the workload that has been done.	Individual Task	In the end of the semester	Presentation Powerpoint

IV. Assessment Criteria (Learning Outcome Evaluation)

Evaluation Type	Sub-CLO	Assessment Type	Frequency	Evaluation Weight (%)
Logbook	1-7	Daily Logbook	16x	20%
Attendance List	1-7	Attendance Sheet	16x	20%
Presentation	1-7	Presentation Rubric	1x	30%
Final Report of Internship	1-7	Final Report Rubric	1x	30%
Total				**100**

V. Rubric(s)

A. Example of Attendance Form

INTERNSHP ATTENDANCE FORM

Name of Student :
NPM :
Intern Institution :
Name of Supervisor :

Date	Week	Time started in the institution	Time finished from the institution	Description
	1			
	2			
	3			
	4			
	5			
	6			

B. Presentation Rubric

PRESENTATION SCORE RUBRIC

Name of Student :

NPM :

Name of Supervisor :

Nilai Total:

No	Evaluation	Grade	Weight	Grade x Weight
1	Mastery towards the workload and the knowledge discipline needed to finish the task		30%	
2	Mastery in the working method		40%	
3	Ability in perceiving		30%	

C. Example of Rubric for the Research Report

INTERNSHIP GRADING

UNDERGRADUATE PHYSICS PROGRAM

DEPARTMENT OF PHYSICS FMIPA UI

Name of Student :

NPM :

Internship Work :

Name of Supervisor 1 :

Name of Supervisor 2 :

Achievement Description (Filled by Supervisors)

NO	COMPONENTS	WEIGHT (%)	NOTES
1	• Creation of sample • Creation of analytical/ numerical/instrumentation system model		
2	• Sample characterization, or • Analytical / numerical derivation of the formula's used, or • Creating an instrumental system		
3	• Data processing, or • Numerical analysis, or • Trial on system		
4	Result Description		
	Averaged Achievement		

Depok,

Supervisor

(_____)

NIP/NUP.