


 FPMIPA UPI	SILABUS	No. Dok. : FPMIPA-SE-SL-8 Revisi : 00 Tanggal : 19 Januari 2011 Halaman : 1 dari 3
	Science Laboratory SE207-2 Credits 2nd Semester - IPSE	
Dibuat Oleh :  (Prof. Dr. Anna Permanasari, M.Si)	Diperiksa Oleh :  (Dr. Diana R.)	Disetujui Oleh :  (Dr. phil. Ari Widodo)

Description

This course is a necessary one in undergraduate science education. It is the basic of knowledge and pedagogical aspects of science lab at school, so it is also functions as a supporting course for expertise course group at science education program. After attended this course, it is expected that the student will be competent in the knowledge of science laboratory topics, and able to expand it as learning materials. The student learning and exercise to use and to maintain basic science instruments, science laboratory involving laboratory design, lab facilities, raw materials and lab instruments, working safety in lab, and using and maintaining instruments in school science kit with their own design based on science curriculum. Lecturing conducted using conceptual and contextual approach also guided-inquiry, with methods: demonstration, practices works, discussion, questions and answers, speech, aided with using LCD, OHP and apparatus. The students achievement checked by mid-semester test and final-semester test and also paper and presentation.


Syllabus

1. Courses Identity

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|-------------------|---|
| a. Name | : Science Laboratory |
| b. Code | : SE 207 |
| c. Credit (s) | : 2 credits |
| d. Grade | : 1 st grade, on 2 nd semester |
| e. Classification | : Concretion Competence Courses |
| f. Program | : IPSE-FPMIPA UPI/ S-1 |
| g. Statue | : compulsory |
| h. prerequisite | : - |
| i. Lecturer | : Prof. Dr. Anna Permanasari, M.Si
Dr. Riandi
Heli Siti, H.M., M.Si
Judhistira A., M.Si & Achmad Syamsudin, M.Si |

2. Goal

Student will be competent in the knowledge of science laboratory management and also competent in using and maintaining science apparatus

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3. Content

The student learning and exercising to use and to maintain basic science instruments, to manage science laboratory involving laboratory design, lab facilities, raw materials and lab instruments, administration of lab management, working safety in lab, and using and maintaining instruments in school science kit

4. Learning Activities

- Method(s) : demonstration, practices works, discussion, questions and answers, speech
- Approach(s) : conceptual and contextual approach
- Assignment : structured-assignment
- Media : LCD, OHP and apparatus, Science Kit

5. Assessment

The students achievement checked by mid-semester test and final-semester test and also paper and presentation

6. Meeting's Agenda:

- 1st Meeting : Introduction
- 2nd Meeting : Works in Laboratory
- 3rd Meeting : Laboratory Safety
- 4th Meeting : Basic Laboratory Equipment
- 5th Meeting : Analytical Measurement in Laboratory
- 6th Meeting : Laboratory Safety in Chemistry Laboratory
- 7th Meeting : Chemical Apparatus and its Function
- 8th Meeting : Basic Skills in Chemistry Laboratory
- 9th Meeting : Acid-Base Titration
- 10th Meeting : Performance Test
- 11th Meeting : Basic Skills in Physics
- 13th Meeting : Electricity Resistivity (Experiment I)
- 14th Meeting : Reflection (Experiment II)
- 15th Meeting : Refraction (Experiment III)
- 16th Meeting : Final Test