



UNIVERSITAS NEGERI YOGYAKARTA
FAKULTAS MIPA

FRM/FMIPA/065-00
February 5, 2013

I. Identity

Faculty : Mathematics and Natural Sciences
Study Program : Science Education
Course/Code : Practicum of science 2/ SSC122
Credits : Lab work = 1
Semester : IV
Prerequisite /code : Practicum of science 1/ SSC117
Lecturer : Susilowati, M.Pd.Si
Widodo Setiyo Wibowo, M.Pd. (widodo_setiyo@uny.ac.id)

II. Course Description

This lab-work is aimed to develop the competence in improving a comprehend and integrated ideas in learning activity, which consists of the skill to plan, conduct, and evaluate the Natural Science learning activity in grade VIII, of the Natural Science curriculum for SMP/MTs.

III. Course Standard Competencies

1. Plan and conduct the labwork results relate to the science topic in grade VIII, of the Natural Science curriculum for SMP/MTs.
2. Report and evaluate the labwork result through presentation and discussion.

IV. Activities

Week	Standard competencies	Activities	Strategy	Reference
1.	Introduction		Lecture	
2.	Pretest of topic 1-4		Test	
3.	Investigates the motion of living things, and also the effect of force toward motion	Lab-work of motion of the living things	Lab-work	Hewitt, Trefil
4.	Investigates liquids transport in plant trunk	Lab-work of capillarity in a plant trunk	Lab-work	Hewitt Trefil, Chang,
5.	Investigates the mechanical and enzymatic digestion toward the food	Test of foods' content, investigation of enzymatic digestion in the mouth	Lab-work	Hewitt, Chang, Trefil
6.	Presents the data and gives an idea to solve problems related to additive and addictive substances abuse in foods and drugs	Test of additive substances in the foods	Lab-work	Hewitt, Chang, Trefil



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7.	Inhall 1		Lab-work	
8.	Presentation of topic 1-4		Presentation & discussion	
9.	Pretest of topic 5-8		Test	
10.	Investigates the material characteristic and gives ideas about using of the material based on the characteristic in daily life	- Observation of material characteristic - Identification of material characteristic and its use in daily life	Lab-work	Hewitt, Chang, Trefil
11.	Observe the phenomena relate to vibration, wave, and sound	Labwork of resonance in the hollow space or cavity	Lab-work	Hewitt, Trefil, Halliday and Resnick
12.	Makes a report of investigation about shadows formation in lens, mirror, and optical devices	Labwork of shadows formation in lens, related to human eye	Lab-work	Hewitt, Trefil, Halliday and Resnick
13.	Investigates hydrostatic pressure, buoyancy, and capillarity and hydrostatic pressure in a compartment	Labwork of Pascal Law	Lab-work	Hewitt, Trefil, Halliday and Resnick
14.	Inhall 2		Lab-work	
15.	Presentation of topic 5-8		Presentation & discussion	
16.	Review session		Test	

V. References

A. Compulsory

1. Hewitt, Paul. 2006. *Conceptual Integrated Science*. USA: Pearson Addison Wesley.
2. Trefil, J. dan Hazen, R. M, 2007. *The Science: An Integrated Approach*. United Stated of America: John Wiley & Sons, Inc.



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B. Additional

1. Chang, Raymond. 2008. Kimia Dasar (konsep-konsep inti), edisi ketiga, jilid 1. Erlangga: Jakarta.
2. Chang, Raymond. 2008. Kimia Dasar (konsep-konsep inti), edisi ketiga, jilid 2. Erlangga: Jakarta
3. Campbell, Reece, Mitchel. 1999. Biology. terjemahan. Jakarta: Erlangga.
4. Halliday and Resnick, 2011, Fundamentals of Physics (9th Edition), John Wiley

VI. Evaluation

No.	Component	Worth (%)
1.	Participation	10
2.	Pretest	10
3.	Presentation & discusion	20
4.	Report	30
5.	Review session	30

Yogyakarta, February 2015
Lecturer

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