



UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
DEPARTMENT OF BIOLOGY EDUCATION
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Bachelor of Education in Biology

MODULE HANDBOOK

Module name:	Workshop on Computer-based Biology Instructional Media
Module level, if applicable:	Undergraduate
Code:	BIP6254
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	5 th
Module coordinator:	Dr. Agung W. Subiantoro
Lecturer(s):	Dr. Agung W. Subiantoro
Language:	Bahasa Indonesia and English
Classification within the curriculum:	University Course
Teaching format/class hours per week during the semester:	200 minutes workshop (i.e laboratory works)
Workload:	Total workload of this course is (app) 106.67 hours in one semester which comprises of: 200 minutes of lab works, 100 minutes of structured assignments, and 100 minutes of individual tasks, weekly and for a total of 16 weeks.
Credit points:	2 credits (SKS) - (5 ETCS)
Prerequisites course(s):	-
Targeted learning outcomes:	After taking this course, students are expected to be able to: CO1. perform good attitude and responsibility upon the tasks given CO2. distinguishing various characteristics of computer-based biology instructional media CO3. developing a well-designed computer-based biology instructional media for a particular school biology topic
Content:	This course focuses on the students' skills on understanding, designing and developing of computer-based biology instructional media. The discourses will be discussed including: the characteristic of computer-based biology instructional media, the principle of multiple representations on computer-based biology instructional media, and applications which useful for developing computer-based biology instructional media.

Study / exam achievements:	Attitude assessment of this course will be regularly taken along the course on each week, mainly by observation towards students' activities and encouragement.		
	The final mark of the course will be examined as follows:		
	COs	Assessment Object	Assessment Technique
	CO1,	Sub-competence test 1	Performance
	CO2,	Sub-competence test 2	and product
	CO3	Sub-competence test 3	assessments
	Total		100%
Instructional media/sources:	Research articles on biology education, online sources		
References:	Heinich, Robert., et al. 2002. <i>Instructional Media and Technologies for Learning 7th ed.</i> New Jersey: Merrill Prentice Hall		
	Rhodes, Holly G. 2018. <i>Design, Selection, and Implementation of Instructional Materials for the Next Generation Science Standards.</i> Washington: National Academic Press		
	Singer, Maxine. 1999. <i>Selecting Instructional Materials: A Guide for K-12 Science.</i> Washington: National Academic Press		
	Treagust, David., Tsui, Chi-Yan (Ed). 2013. <i>Multiple Representations in Biological Education.</i> Dordrecht: Springer		

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1					√							
CO2					√	√						
CO3						√						