UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF SCIENCE EDUCATION
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Bachelor of Education in Science **MODULE HANDBOOK**

Module name:	Information and Communication Technology (ICT)
Module level, if applicable:	Undergraduate
Code:	IPA 6216
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	2nd (second)
Module coordinator:	Sabar Nurohman, M.Pd.
Lecturer(s):	Widodo Setiyo Wibowo, M.Pd,
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90.67 hours per semester which consists of 100 minutes lectures and 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2 (3 ETCS)
Prerequisites course(s):	-
Targeted learning outcomes:	After accomplishing this course students are able to: CO1. show independency and responsibility in carrying out individual tasks and group assignments CO2. maintain and develop networks with mentors, and colleagues in developing online learning CO3. apply ICT for developing web-based learning, web-based assessment in science learning, and e-commerce.
Content:	This course will study about ICT and its use in various fields of life, components of computers, network systems, and the

<table>
<tr><td></td><td>internet, the use of Google Docs, Google Spreadsheets, Google Presentation, and Google Form for various academic needs, the use of PhET Simulations as a virtual experiment in science learning, developing teaching materials and online scoring systems using various applications such as: Edmodo, Google Classroom, and Blogger, use Tracker Video Analysis to analyze digital motion phenomena, developing presentations with Prezi for learning purposes, and utilization of ICT in e-commerce.</td></tr>
<tr><td>Study/exam achievements:</td><td>Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.

The final mark will be weight as follow:

<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO1, CO2 and CO3</td><td>a. Individual Assignment
b. Group Assignment
c. Mid
d. Final Exam</td><td>Project and written test</td><td>20%
20%
30%
30%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
</table>
</td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>Literature:</td><td>A. Ruth Colvin Clark & Ann Kwinn. (207). The new virtual classroom : evidence-based guidelines for synchronous e-learning. San Francisco: John Wiley & Son
B. Abdul kadir& Terra Ch. Triwahyuni. (2003). Pengenalan Teknologi Informasi. Yogyakarta: Penerbit ANDI
C. Suharyanto & Sabar Nurohman. (2007). Petunjuk Praktikum TIK. Yogyakarta: FMIPA UNY
D. TIM ICT UNY. (2007). Pembekalan Information and Comunication Technology (ICT) Mahasiswa Baru. Yogyakarta:UNY</td></tr>
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PLO and CO mapping

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