



UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF SCIENCE EDUCATION

Jalan Colombo Nomor 1 Yogyakarta 55281

Telepon(0274)565411 Pesawat 217, (0274)565411(TU),fax (0274)548203

Laman :fmipa.uny.ac.id, E-mail :humas_fmipa@uny.ac.id

Bachelor of Education in Science

MODULE HANDBOOK

Module name:	Natural Sciences Research Methodology
Module level, if applicable:	Undergraduate
Code:	IPA6240
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	4 th
Module coordinator:	Prof. Dr. Sri Atun
Lecturer(s):	Prof. Dr. Sri Atun
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective 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, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2 SKS (3 ETCS)
Prerequisites course(s):	-
Targeted learning outcomes:	At the end of the lecture the students have competencies: CO1. cognitive, namely knowing, understanding and distinguishing various research methods in the field of education CO2. psychomotor, which is to choose and carry out research steps that are in accordance with the topic or problem of their chosen final project CO3. affective, which is to avoid ways that are not commendable in research, for example plagiarism.
Content:	This Natural Sciences Research Methodology course aims to equip students with the knowledge, understanding and application of various research methods in the context of

	preparing the final project. In lectures discussed various types of research, steps of scientific research ranging from determining the topic, identifying problems, reviewing the literature, determining the focus of the problem, determining the variables, design and design, data collection techniques, analysis and conclusion drawing. Learning activities include lectures with various approaches and methods that involve students, such as discussions, field observations to learn to identify problems and practice making research proposals.															
Study / exam achievements:	<p>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.</p> <p>The final mark will be weight as follow:</p> <table border="1"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>C01, C02, C03, C04, C05, C06 and C07</td> <td>a. Individual Assignment b. Group Assignment c. Quiz d. Observation e. Portfolio</td> <td>Presentation / written test</td> <td>15% 15% 15% 25% 30%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	C01, C02, C03, C04, C05, C06 and C07	a. Individual Assignment b. Group Assignment c. Quiz d. Observation e. Portfolio	Presentation / written test	15% 15% 15% 25% 30%	Total				100%
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Total				100%												
Forms of media:	Board, LCD Projector, Laptop/Computer															
Literature:	<ol style="list-style-type: none"> Kumar, R. (2011). Research Methodology: a step-by-step guide for beginners (3rd edition). London, UK: TJ International Ltd, Padstow, Cornwall. Leedy, P. D. (1980). Practical Research: Planning and design. Washington: Mc Millan Publishing Co., Inc. Singh, Y. K. (2006). Fundamental of Research Methodology and Statistics. New Delhi. New International (P) Limited, Publishers 															

PLO and CO mapping

	PLO											
	Attitude			Knowledge				Specific Skill				
	PLO1	PLO2	PLO3	PLO1	PLO2	PLO3	PLO4	PLO1	PLO2	PLO3	PLO4	PLO5
CO1					✓		✓	✓				
CO2				✓		✓						
CO3				✓			✓	✓				