



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:	Research Methods in Science Education
Module level, if applicable:	Undergraduate
Code:	PIA6213
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	6 th
Module coordinator:	Dr. Dadan Rosana, M.Si.
Lecturer(s):	Dr. Dadan Rosana, M.Si.
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, 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:	After successfully completing this course, you will be able to: CO1. Examine types of research CO2. Appraise research methods (e.g. such as qualitative, quantitative, single-case designs, action research, and outcome-based research) CO3. Evaluate the relevance of research in advancing the discipline/field CO4. Examine problems/issues and related limitations in research studies in the discipline CO5. Use research data to create strategies that impact education or school counseling outcomes CO6. Examine how program evaluation and research findings

	<p>can inform change, provide accountability and produce evidence-based practice</p> <p>CO7. Demonstrate ethical and culturally relevant strategies for interpreting and reporting the results of research and/or program evaluation studies</p> <p>CO8. Demonstrate measurable outcomes for programs, interventions, and experiences in discipline</p>															
Content:	<p>This course provides an understanding of research methods statistical analysis, needs assessments, and program evaluation. The significance of research to advance the field of education, to inform evidence-based practice, and the use of findings to effect program motivation will be covered. The course is designed to prepare practitioners to conduct high quality research using various approaches; including, qualitative, quantitative, single-case design, mixed methods, action research, and outcome-based research.</p>															
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><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, CO3, CO4, CO5, CO6, CO7, and CO8.</td><td>a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam</td><td>Presentation / written test</td><td>15% 15% 15% 25% 30%</td></tr><tr><td colspan="4">Total</td><td>100%</td></tr></table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1, CO2, CO3, CO4, CO5, CO6, CO7, and CO8.	a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam	Presentation / written test	15% 15% 15% 25% 30%	Total				100%
No	CO	Assessment Object	Assessment Technique	Weight												
1	CO1, CO2, CO3, CO4, CO5, CO6, CO7, and CO8.	a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam	Presentation / written test	15% 15% 15% 25% 30%												
Total				100%												
Forms of media:	Board, LCD Projector, Laptop/Computer															
Literature:	<p>1. Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods</p> <p>2. Ary, Donald Ary; Jacob, Lucy Cheser; Razavieh, Asghar. (1985). Introduction to Research in Education. Third Edition, New York: Holt, Rinehart and Winston.</p> <p>2. Krathwohl, David R. (1986).. Methods of Educational & Social Science Research. New York: Addison Wesley Longman, Inc.</p>															

	3. Wiersma, William. (1986). <i>Research Methods in Education an Introduction. Fourth Edition.</i> Boston: Allyn and Bacon, Inc.
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PLO and CO mapping

	PLO											
	Attitude			Knowledge				Specific Skill				
	PLO1	PLO2	PLO3	PLO1	PLO2	PLO3	PLO4	PLO1	PLO2	PLO3	PLO4	PLO5
CO1					✓		✓					
CO2				✓			✓					
CO3					✓	✓		✓				
CO4				✓					✓			
CO5					✓	✓		✓				
CO6				✓					✓			
CO7					✓		✓					
CO8				✓			✓					