

Module Descriptions

Module designation	Metode Penelitian Pendidikan Biologi <i>Research Methodology in Biology Education</i>
Course Code	8420503158
Semester/Term	4 th Semester
Person responsible for the module	Dr. Rinie Pratiwi Purpitawati, M.Si.
Language	Bahasa Indonesia (Indonesian language)
Relation to curriculum	Compulsory
Teaching methods	Individual Project
Workload	2 x 50 minutes lectures per week 2 x 50 minutes structured activity per week 2 x 60 minutes individual activity per week
Credit Point	2 CU(3.18 ECTS)
Required and recommended prerequisites for joining the module	-
Module Objectives/intended learning outcomes	<p>After taking this course, students will be:</p> <ol style="list-style-type: none"> 1. Students can apply basic concepts of research methodology in designing biology education research (C3). 2. Students can determine analytical techniques in the context of biology education research (C4). 3. Students can determine effective research methods in biology education (C5). 4. Students can identify various research methods to apply to biology education research (C4). 5. Students can apply effective communication techniques to present research results orally and in writing (C3). 6. Students can analyze and evaluate the quality of information sources and references used in research (C4, C5). 7. Students can create innovative research proposals by utilizing current knowledge in biology education (C6). 8. Students can apply critical and systematic thinking in identifying and solving research problems (C3). 9. Students can analyze research problems and solve them based on logical and critical arguments (C4).
Content	The Research Methodology course in the Biology Education study program aims to provide an understanding and skills in designing, implementing, and evaluating scientific research in the field of biology. This course covers the steps of research methodology, data collection techniques, data analysis, and the preparation of research reports. The scope of this course includes an understanding of basic research concepts, formulation of research problems, selection of appropriate research methods, data processing, interpretation of results, and

	ethics in scientific research. By taking this course, students are expected to be able to become competent researchers and be able to produce quality scientific work in the field of biology.																													
Study and examination requirements and forms of examination	<p>The final grade (NA) is calculated based on the following ratio:</p> <table border="1" data-bbox="639 349 1439 589"> <thead> <tr> <th>Assessment Components</th> <th>Percentage of contribution</th> </tr> </thead> <tbody> <tr> <td>Individual project</td> <td>30%</td> </tr> <tr> <td>Class participation</td> <td>50%</td> </tr> <tr> <td>Test</td> <td>20%</td> </tr> </tbody> </table>	Assessment Components	Percentage of contribution	Individual project	30%	Class participation	50%	Test	20%																					
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<p>Grade Conversion of 0-100 scale into 0-4 scale is set as below:</p> <table border="1" data-bbox="639 674 1439 1249"> <thead> <tr> <th>Letter</th> <th>Number</th> <th>Grade interval</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4.00</td> <td>85 ≤ A ≤ 100</td> </tr> <tr> <td>A-</td> <td>3.75</td> <td>80 ≤ A- < 85</td> </tr> <tr> <td>B+</td> <td>3.50</td> <td>75 ≤ B+ < 80</td> </tr> <tr> <td>B</td> <td>3.00</td> <td>70 ≤ B < 75</td> </tr> <tr> <td>B-</td> <td>2.75</td> <td>65 ≤ B- < 70</td> </tr> <tr> <td>C+</td> <td>2.50</td> <td>60 ≤ C+ < 65</td> </tr> <tr> <td>C</td> <td>2.00</td> <td>55 ≤ C < 60</td> </tr> <tr> <td>D</td> <td>1.00</td> <td>40 ≤ D < 55</td> </tr> <tr> <td>E</td> <td>0.00</td> <td>0 ≤ E < 40</td> </tr> </tbody> </table>	Letter	Number	Grade interval	A	4.00	85 ≤ A ≤ 100	A-	3.75	80 ≤ A- < 85	B+	3.50	75 ≤ B+ < 80	B	3.00	70 ≤ B < 75	B-	2.75	65 ≤ B- < 70	C+	2.50	60 ≤ C+ < 65	C	2.00	55 ≤ C < 60	D	1.00	40 ≤ D < 55	E	0.00	0 ≤ E < 40
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Reading List	<ol style="list-style-type: none"> 1. Creswell, J.W. & Creswell, J.D. 2018. Research Design: Qualitative, Quantitative, and Mixed Methods. 5rd Edition. California: SAGEPublications, Inc. 2. Fraenkel, J.R., Wallen, N.E., Hyun, H. H. 2012. How to Design and Evaluate Research in Education . New York: McGraw-HillCompanies, Inc. 3. Tuckman, Bruce W. 2000. Conducting Educational Research Fourth Edition . New York: Harcourt Bace Javanovich, Inc 4. Susantini, E., Puspitawati, R. P., Raharjo, & Suaidah, H. L. 2021. E-book of Metacognitive Learning Strategies: Design andImplementation to Activate Student's Self-Regulation. Research and Practice in Technology Enhanced Learning, 16(13). https://doi.org/10.1186/s41039-021-00161-z 																													