

## 5. Research 1

<b>Module designation</b>	Research 1
<b>Code, if applicable</b>	PCIL 9232
<b>Semester(s) in which the module is taught</b>	3 <sup>rd</sup>
<b>Person responsible for the module</b>	Head of Study Program; Promotor & Co-Promotor.
<b>Language</b>	<i>Indonesian and English</i>
<b>Relation to curriculum</b>	<i>Compulsory</i>
<b>Teaching methods</b>	<i>Progress Report, Presentation, Discussion.</i>
<b>Type of teaching, contact hours</b>	<ul style="list-style-type: none"> <li>• Discussion with Principal Supervisor (16 hours, 1 hour weekly for 16 weeks)</li> <li>• Discussion with Co-Supervisor (16 hours, 1 hour for 16 weeks)</li> <li>• Independent work on reading materials and literature review (80 hours, 5 hours weekly for 16 weeks)</li> <li>• Developing research proposal (<math>\pm 106</math> hours, 8 hours weekly for 16 weeks)</li> <li>• Preparing progress report (16 hours, 1 hour weekly for 16 weeks)</li> <li>• Preparing presentation materials (16 hours, 1 hour weekly for 16 weeks)</li> </ul> <p>Total hours in 1 semester = 250 hours</p>
<b>Student Workload for One ECTS</b>	<ul style="list-style-type: none"> <li>• Face-to-face discussion with Principal Supervisor (1.6 hours)</li> <li>• Face-to-face discussion with Co-Supervisor (1.6 hours)</li> <li>• Independent work (reading books, materials, papers, literature review, etc. : 8 hours)</li> <li>• Developing proposal draft (introduction, research method, research framework, data analysis techniques, etc.: 10.6 hours)</li> <li>• Preparing progress report (improvements, challenges, constraints, etc.: 1.6 hours)</li> <li>• Preparing presentation materials for discussion with supervisors (1.6 hours)</li> </ul> <p>Total workload for one ECTS : 25 hours</p>
<b>Laboratory Work</b>	Students taking this course have the chance to utilize the laboratory within the Diponegoro University according to each student's research needs

<b>Credit points</b>	<i>3 SKS which equivalent to 10 ECTS</i>
<b>Requirements according to the examination regulations</b>	Participate in monitoring and evaluating progress of the preparation of the dissertation organized by the Study Program; Collecting of portfolio of progress report for dissertation.
<b>Required and recommended prerequisites for joining the module</b>	Existing competencies in literature review and scientific writing.
<b>Module objectives/intended learning outcomes</b>	<ul style="list-style-type: none"> <li>• Able to compile research plan.</li> <li>• Able to compile proposal dissertation.</li> </ul>
<b>Content</b>	<ul style="list-style-type: none"> <li>• Concepts of Abiotic,</li> <li>• Biotic and Culture at dissertation research in the field of environmental science;</li> <li>• Problem statements in dissertation research;</li> <li>• Formulation of objectives;</li> <li>• Formulation of research hypotheses;</li> <li>• Literature Review;</li> <li>• Originality of dissertation research;</li> <li>• State of the art and novelty;</li> <li>• Research methodology in dissertation research;</li> <li>• Objects and variables of dissertation research;</li> <li>• Portfolio of progress reports of the dissertation proposal.</li> </ul>
<b>Exams and assessment formats</b>	Mid-semester progress report assessment, final progress report assessment.
<b>Study and examination requirements</b>	Requirements for successfully passing the module The final grade in the module is composed of 80% performance on portfolio of progress reports, 20% participation in monitoring and evaluating. Students must submit a portfolio of progress reports and a draft dissertation according to the targeted stages as a minimum achievement to pass.

<b>Reading list</b>	<p>Modul of Writing Dissertation DES</p> <p>Kasperson, J. X., Kasperson, R. E., Turner, B. L., Hsieh, W., &amp; Schiller, A. (2022). Vulnerability to global environmental change. In <i>The social contours of risk</i> (pp. 245-285). Routledge.</p> <p>Louv, R., &amp; Fitzpatrick, J. W. (2012). <i>Citizen science: Public participation in environmental research</i>. Cornell University Press.</p> <p>Pohl, C. (2005). Transdisciplinary collaboration in environmental research. <i>Futures</i>, 37(10), 1159-1178.</p> <p>Svarstad, H., Petersen, L. K., Rothman, D., Siepel, H., &amp; Wätzold, F. (2008). Discursive biases of the environmental research framework DPSIR. <i>Land use policy</i>, 25(1), 116-125.</p>
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