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|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------|--------------------------------|---|---|
| Module designation                               | <p>The Environmental Degradation course discusses the concepts, theories, scope of study, causal factors and typologies of environmental degradation. In addition, it also studies the impact of land/forest/water and air degradation on environmental damage, the role of landscape approaches in assessing land degradation, and how land rehabilitation efforts improve environmental degradation. At the end of the lecture, a case study is given about the degradation of the area in a location and students are expected to be able to review and produce recommendations for their rehabilitation.</p> <p>Environmental degradation courses are carried out using the SCL method and case-based learning to improve students' understanding and ability to analyze the causes of environmental degradation and recommendations for recovery. The case study at the end of the lecture is intended to improve the ability of students to work in groups to study and solve the problem of environmental degradation in a certain place.</p> <p>After completing the lecture, students are expected to be able to explain the concept of environmental degradation, identify the causal factors, typology and classification of environmental damage, and provide recommendations on efforts to improve and rehabilitate environmental degradation that occurs.</p> |                                                 |                                                   |                                |   |   |
| Semester(s) in which the module is taught        | Odd/Even                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                 |                                                   |                                |   |   |
| Person responsible for the module                | Prof. Dr. Suratman, M.Sc.<br>Dr. Sigit Heru Murti Budi Santosa, S.Si., M.Si.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                 |                                                   |                                |   |   |
| Language                                         | Indonesian                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                 |                                                   |                                |   |   |
| Relation to curriculum                           | Elective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                 |                                                   |                                |   |   |
| Teaching methods                                 | SCL: Team-based Project/Case-based Learning/PBL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                                                   |                                |   |   |
| Workload (incl. contact hours, self-study hours) | CLO1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Interactive lectures and discussions            |                                                   | 4 x meetings (8 x 50 minutes)  |   |   |
|                                                  | CLO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Interactive lectures and individual assignments |                                                   | 6 x meetings (12 x 50 minutes) |   |   |
|                                                  | CLO3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Grand design and group tasks                    |                                                   | 4 meetings (8 x 50 minutes)    |   |   |
| Credit points                                    | Assessment Techniques                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Percentage of Assessment (%)                    | Criteria/ Indicators                              | CLO (%)                        |   |   |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                                                   | 1                              | 2 | 3 |
|                                                  | Participatory Activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 15                                              | Presentation contributions<br>Presentation rubric | 5                              | 5 | 5 |

|                                                               |                                                           |                                                                                                                                                                                                                                                                                                                                           |                                           |    |    |    |
|---------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----|----|
|                                                               | Project Results/<br>Case Study<br>Results/ PBL<br>Results | 35                                                                                                                                                                                                                                                                                                                                        | Problem analysis<br>PBL assessment rubric |    |    | 35 |
|                                                               | Cognitive                                                 |                                                                                                                                                                                                                                                                                                                                           |                                           |    |    |    |
|                                                               | Assignment                                                | 15                                                                                                                                                                                                                                                                                                                                        | Heading penilaian                         | 5  | 10 |    |
|                                                               | Quiz                                                      | 10                                                                                                                                                                                                                                                                                                                                        | Heading penilaian                         | 5  | 5  |    |
|                                                               | Final Exam                                                | 25                                                                                                                                                                                                                                                                                                                                        | Answer key                                | 15 | 10 |    |
|                                                               | Total                                                     | 100%                                                                                                                                                                                                                                                                                                                                      |                                           |    |    |    |
| Required and recommended prerequisites for joining the module | Tidak Ada                                                 |                                                                                                                                                                                                                                                                                                                                           |                                           |    |    |    |
| Module objectives/intended learning outcomes                  | ELO2                                                      | Supporting Competence I (knowledge and <i>understanding</i> of) is being able to understand, synthesis, and or evaluate the development of concepts, theories and applications of geography for the benefit of development.                                                                                                               |                                           |    |    |    |
|                                                               | ELO4                                                      | Supporting Competence III (practical skill-able to) is being able to develop, modify, and synthesis geographic analysis methods to solve problems in the real world, whether spatial, ecological, or regionally complex.                                                                                                                  |                                           |    |    |    |
|                                                               |                                                           |                                                                                                                                                                                                                                                                                                                                           |                                           |    |    |    |
|                                                               | CLO1                                                      | Able to understand the concepts, theories, thresholds, and applications of geography to overcome environmental degradation [ELO2]                                                                                                                                                                                                         |                                           |    |    |    |
|                                                               | CLO2                                                      | Able to synthesis and evaluate concepts and theories to overcome environmental problems [ELO2]                                                                                                                                                                                                                                            |                                           |    |    |    |
|                                                               | CLO3                                                      | Able to develop research methods to solve environmental resource problems [ELO4]                                                                                                                                                                                                                                                          |                                           |    |    |    |
| Content                                                       | CLO1                                                      | 1. The concept of the theory of environmental degradation<br>2. Scope of environmental degradation studies<br>3. Typology of environmental degradation<br>4. Factors causing environmental degradation<br>5. Landscape approach to land degradation mapping<br>6. Policies, regulations and global issues related to environmental damage |                                           |    |    |    |
|                                                               | CLO2                                                      | 1. Climate change and environmental degradation<br>2. The impact of forest degradation on environmental damage<br>3. The impact of land degradation on environmental damage<br>4. The impact of water degradation and air pollution on environmental damage<br>5. Local wisdom and environmentally sound development                      |                                           |    |    |    |

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|                                    | <b>CLO3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>1.</b> Classification of environmental degradation and damage<br><b>2.</b> Rehabilitation of degradation and environmental damage<br><b>3.</b> Case studies |
| Examination forms                  | Final Exam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                |
| Study and Examination Requirements |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                |
| Reading list                       | <b>Main References :</b> <ol style="list-style-type: none"> <li>1. Katiyar, V. and Verma, SK., <i>Environmental Degradation-Issues and Challenges</i>, New Delhi Publisher, 2012</li> <li>2. Kalamdhad, AS., Haq, I., and Dash, S., <i>Environment Degradation: Monitoring, Assessment dan Treatment Technologies</i>, Springer, 2022</li> <li>3. Marsh, A., <i>Environmental Degradation</i>, Earth Reminder, 2021</li> <li>4. Markandya, A., and Dale, N., <i>Measuring Environmental Degradation</i>, Edwar Elgar, 2001</li> </ol> |                                                                                                                                                                |