## MODUL HANDBOOK ENVIRONMENTAL ECONOMICS AND NATURAL RESOURCES





MASTER PROGRAM OF ENVIRONMENTAL SCIENCE SCHOOL OF POSTGRADUATE STUDIES DIPONEGORO UNIVERSITY

## Module Description:

| Module designation  | Environmental Economics and Natural Resources   |
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| Semester(s) in which the module is taught                           | 1 <sup>st</sup> semester  |
| Person responsible for the module                                   | Prof. Dra. Indah Susilowati, MSc., Ph.D<br>Dr. Purnawan Adi Wicaksono, S.T., M.T<br>Dr. Eng. Maryono, S.T., M.T.  |
| Language  | Indonesian and English  |
| Relation to curriculum  | Compulsory  |
| Teaching methods  | <ul> <li>Mix Method or Blended Learning by incorporating Lecture based-learning, Individual learning and High Technological learning</li> <li>Lecture based learning: teacher lead a lesson by using presenting on, showing visual</li> </ul>   |
|   | • Student Centred-learning: teacher promote individual learning so that student can exploring individual idea   |
|   | • High technological learning, teacher leads to use high technology in information such as by exploring, utilizing internet/searching engine and social media.  |
| Workload (incl. contact hours, self-study hours)                    | <ul> <li>Lecture, 3 hours per week</li> <li>Discussion and presentation (Q&amp;A), 1,5 hours per week</li> <li>Individual assignment, 5 hours per week</li> <li>Total workload for semester = 150 hours</li> </ul>  |
| Credit points   | 3 Credits / 6 ECTS  |
| Required and recommended<br>prerequisites for joining the<br>module | No required prerequisite  |
| Module objectives/intended<br>learning outcomes                     | <ul> <li>Able to formulate environmental management theory especially by using economic theory approach</li> <li>Able to formulate environmental management policies, especially for increasing economic and natural resources utility</li> <li>Able to formulate rules, methods of environmental management to improve the quality of life, especially by improving the economic equity and development green natural resources</li> </ul> |

| Content  | This course discusses the concepts and understanding of the<br>management and utilization of natural resources. Discusses the<br>principles of optimizing the use and management of natural<br>resources as well as regulatory policies and some static<br>techniques of natural resource analysis. The concept and<br>understanding of economic value and the influence of natural<br>resource management on welfare.   |
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| Examination forms Study and examination requirements | <ul> <li>Open book or clossed book</li> <li>Assays,</li> <li>Individual and group task</li> <li>Lecture attendance at least 75%.</li> </ul>  |
| Reading list   | <ol> <li>Tietenberg, T. and Lewis, Lynne. 2019.<br/>Environmental Economics: What Matters.<br/>Routledge.</li> <li>EIK's daughter, Nuva. 2014. Environmental<br/>Economics. IPB Press. Bogor</li> <li>Kolstad, CD 2012. Environmental Economics.<br/>University of Oxford Press; 2nd edition.</li> <li>Smith, Stephen. 2011. Environmental Economics: A<br/>Very Brief Introduction. University of Oxford Press;<br/>first edition.</li> <li>Fauzi, Akhmad 2010. Natural Resource Economics.<br/>and Environment. Gramedia Main Library.<br/>Forestman and Company, Boston.</li> <li>Hawkins, Paul. 2010. Revised Edition of Trade<br/>Ecology: The Declaration of Sustainability (Collins<br/>Business Essentials). Harper's Business.</li> <li>Fauzi A. (2005). Historical Perspectives in Economic<br/>Valuation. Economic Valuation Training Materials.</li> <li>Grafton, RQ; etc. 2004. Environmental Economics<br/>and Natural Resources. Blackwell Publishing.UK</li> <li>Hanley, N., J. F, Shogren, and B. White. 2002.<br/>Environmental Economics in Theory and Practice.<br/>Palgrave MacMillan, New York.</li> <li>Van den Bergh, J. C. (Ed.). (2002). Handbook of<br/>environmental and resource economics. Edward<br/>Elgar Publishing.</li> </ol> |