

# MODUL ENVIRONMENTAL STATISTICS



MASTER PROGRAM OF ENVIRONMENTAL SCIENCE  
SCHOOL OF POSTGRADUATED STUDIES  
DIPONEGORO UNIVERSITY

**Modul Description :**

Modul design	Environmental Statistics
Modul level, if applicable	
Code, if applicable	P-CIL-8-103
Subtitles, if any	
Course, if applicable	
Semester(s) in which the Modulis taught	Semester 1
Modulresponsible*	Dr. Budi Warsito, S.Si, M.Sc
Teaching Lecturer	1. Dr. Budi Warsito, S.Si, M.Sc 2. Prof. Dr. dr. Sunarsih, M.Sc 3. Ferry Hermawan, ST., MT., PhD.
Language	<i>Indonesian and English</i>
Relationship with curriculum	
Type of teaching, hours of contact	<i>Lecture: 120 minutes Q&amp;A: 20 minutes Discussion: 20 minutes Presentation: 20 minutes Individual Task: 36 minutes</i>
Workload	<i>(Estimated) workload, divided into contact hours (lectures, exercises, laboratory sessions, etc.) and personal study, including test preparation, specified in hours,<sup>1</sup>and overall.</i>
credit points	<i>2 credits / 4 ECTS</i>
Requirements according to the exam regulations	<i>Lecture attendance of at least 75%</i>
Recommended prerequisites	

\*Advanced lecture material conducted by the main supervisor, co-supervisors and students refers to the research topic.

Modulethe desired learning objectives/outcomes	Students are able to process and analyze data related to the field of Environment by applying statistical methods. Able to apply the use of statistics in the field of Environment and master the concepts needed to analyze environmental problems
Fill	EnvironmentThe statistics course discusses the meaning of statistics, descriptive statistics, basic concepts of probability, probability distribution, theoretical distribution of random variables, theoretical distribution of continuous random variables, sampling distribution, estimation, single sample hypothesis testing, multiple sample hypothesis testing, some other inferential analysis, linear regression simple and correlation, and some non-parametric methods.
Study and exam requirements and forms	<ul style="list-style-type: none"> <li>• <i>Open the book and close the book</i></li> <li>• <i>Multiple choice, case studies, interviews, practicals</i></li> </ul>
Media used	<i>Powerpoint, youtube, website</i>
Reference	<ol style="list-style-type: none"> <li>1. Darma Budi., Statistical Research Using SPSS, Guepedia Publisher, Jakarta, 2021</li> <li>2. Hek Kim Tan., Introduction to Statistics, Publisher of the Kita Write Foundation, Medan, 2021</li> <li>3. Hadi, S., Statistics, Student Library, Yogyakarta, 2015.</li> <li>4. Rohmad, and Supriyanto, Introduction to Statistics, Kalimedia, Yogyakarta, 2015</li> <li>5. Spiegel MR, Statistics, Schaum Outline Series, McGraw-Hill, New York, 1982.</li> <li>6. Supranto J., Theory and Application of Statistics Volume 1, Erlangga, Jakarta, 2009.</li> <li>7. Supranto J., Theory and Application of Statistics Volume 2, Erlangga, Jakarta, 2009.</li> <li>8. Usman, H., and Akbar, PS, Introduction to Statistics, Earth Literacy, Jakarta, 2015</li> </ol>