

MODUL

GIS FOR ENVIRONMENT



MASTER PROGRAM OF ENVIRONMENTAL SCIENCE
SCHOOL OF POSTGRADUATE STUDIES
DIPONEGORO UNIVERSITY

A Module Descriptions :

Module design	GIS For Environment
Module level, if applicable	
Code, if applicable	P-CIL-8-214
Subtitles, if applicable	
Courses, if applicable	
Semester(s) in which the module is taught	2 nd Semester
Person responsible for the module	
Lecturer	1. Dr. Eng. Maryono, S.T., M.T. 2. Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si 3. Dr. Muhammad Helmi, S.Si., M.Si"
Language	<i>Indonesian and English</i>
Relations to curriculum	
Type of teaching, contact hours	<i>Lecture: 120 minutes Q&A: 20 minutes Discussion: 20 minutes Presentation: 20 minutes Individual Assignment: 36 minutes</i>
Workload	<i>(Estimated) workload, divided into contact hours (lecture, exercise, laboratory session, etc.) and private study, including examination preparation, specified in hours,¹ and in total.</i>
Credit points	<i>2 credits / 4 ECTS</i>
Requirements according to the examination regulations	<i>Minimum attendance of lectures 75%</i>
Recommended prerequisites	<i>eg existing competences in...</i>

* Material for advance lecture perform by principal supervisor, co supervisor and student refers to research topic.

Module objectives/intended learning outcomes	Students are Able to recognize the benefits of GIS-based software in responding to environmental problems and also able to operate GIS-based software to answer environmental problems.
Content	In this course, students will learn one of the main objectives of geographic information systems, namely the use of computer-based systems to manage geographic data. The theoretical basis of geographic information systems, components, data formats and methods of processing spatial data will be given so that students will have knowledge of how to compile, process, analyze, and interpret spatial data in geographic information systems. To understand and gain experience in compiling spatial data, students will be given the task of compiling simple spatial data compiled as attribute data in spatial data. The process of converting spatial data used in geographic information systems will also be given in this course.
Study and examination requirements and forms of examination	• <i>Open book and close book</i> • <i>Multiple choice, case study, interview, practice</i>
Media employed	<i>Powerpoint, youtube, website</i>
Reading list	1. Adil Ahmat.2017.Geographic Information System. Publisher ANDI. Yogyakarta 2. Irwansyah Edy. 2013. Basic Principles and Development of GIS Applications. Digibooks Printing and Publishing. Yogyakarta 3. Wahana Komputer.2015.GIS Modeling for Disaster Mitigation. PT.Elex Media Komputindo. Jakarta