

A **Module Handbook** or collection of module descriptions that is also available for students to consult should contain the following information about the individual modules:

Module designation	Systems Analysis and Environmental Modeling
Module level, if applicable	
Code, if applicable	DIL313
Subtitle, if applicable	
Courses, if applicable	
Semester(s) in which the module is taught	1 st Semester
Person responsible for the module	Prof. Dr. Ir. Purwanto, DEA
Lecturer	1. Prof. Dr. Ir. Purwanto, DEA 2. Prof. Dr. Sutrisno Anggoro, M.S.
Language	<i>Indonesian and English</i>
Relation to curriculum	
Type of teaching, contact hours	<i>Lecture: 60 minutes Q&A: 10 minutes Discussion: 10 minutes Presentation: 10 minutes</i>
Workload	<ul style="list-style-type: none"> • <i>50 minutes of face-to-face lectures in class</i> • <i>1 hour of structured assignments (doing homework or assignments given by lecturers)</i> • <i>1 hour of independent work (reading books, papers, etc.)</i>
Credit points	<i>3 credits</i>
Requirements according to the examination regulations	<i>Minimum attendance of lectures 75%</i>
Recommended prerequisites	<i>E.g. existing competences in ...</i>
Module objectives/intended learning outcomes	<ul style="list-style-type: none"> • <i>Able to identify, formulate and analyze complex engineering problems on integrated systems based on analytical, computational or experimental approaches.</i> • <i>Mastering the principles and techniques of integrated system design with an environmental systems approach.</i> • <i>Able to research and investigate complex engineering problems on integrated systems using basic engineering principles and by carrying out research, analysis, data interpretation and information synthesis to provide solutions.</i>
Content	This course studies systems and system modeling, especially systems in the environment. This course studies the process/steps of mathematical modeling for problems in environmental systems, the process of model verification and validation, to finding solutions or model analysis.
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> • <i>Open book and close book</i> • <i>Multiple choice, case study, interview, practice</i>
Media employed	<i>Power point, youtube, website</i>