Module designation	System Analysis and Environmental Modelling
Module level, if applicable	
Code, if applicable	CIL 23813
Subtitle, if applicable	
Courses, if applicable	
Semester(s) in which the module is taught	1st 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	*Indonesian and English*
Relation to curriculum	
Type of teaching, contact hours	*Lecture: 60 minutes* *Q&A: 10 minutes* *Discussion: 10 minutes* *Presentation: 10 minutes*
Workload	• *50 minutes of face-to-face lectures in class* • *1 hour of structured assignments (doing homework or assignments given by lecturers)* • *1 hour of independent work (reading books, papers, etc.)*
Credit points	*3 credits*
Requirements according to the examination regulations	*Minimum attendance of lectures 75%*
Recommended prerequisites	
Module objectives/intended learning outcomes	• *Able to identify, formulate and analyze complex engineering problems on integrated systems based on analytical, computational or experimental approaches.* • *Mastering the principles and techniques of integrated system design with an environmental systems approach.* • *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.*
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	• *Open book and close book* • *Multiple choice, case study, interview, practice*
Media employed	*Power point, youtube, website*