WI2001 Introduction to Engineering and Design

Module designation	Introduction to Engineering and Design
Semester(s) in which the module is taught	2nd Semester (first year of undergraduate program)
Person responsible for the module	Delik Hudalah, ST, MT, M.Sc., Ph.D.
Language	Indonesian
Relation to curriculum	Compulsory courses for the Undergraduate Program in Urban and Regional Planning
Teaching methods	Lecture
Workload (incl. contact hours, self-study hours)	Total workload: around 144 hours 1. Lecture : ● Face to face teaching : 28 Hours ● Structured Activities : - Hours ● Independent Study : - Hours ● Exam : 4 Hours 2. Tutorial : ● Face to face teaching : - Hours ● Structured Activities : 32 Hours ● Independent Study : 32 Hours ● Exam : - Hours
Credit points	3 CU/5 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	After completion of this module students are expected to be able to: 1. Relates and applies mathematics and basic sciences to a simple engineering and design problem 2. Employs tools and determined materials to fulfill a specific design requirements 3. Expresses a creative thinking in solving a simple engineering and design problem 4. Interprets the contemporary issues related to engineering and design to solve a simple engineering and design problem 5. Builds interdisciplinary collaboration among students to solve a simple engineering and design problem
Content	This course activities consist of lectures and practice with scope: ● Class orientation and team preparation ● Student team activities: problem definition and formulation, propose alternative solution and conceptual design, experiment/implementation of design solution, evaluation of design solution
Examination forms	Essay, exam

Study and examination requirements	Group projects Project 1 : 25% Project 2 : 25% Project 3 : 25% ● Peer assessment : 25%
Reading list	Philip Kosky et al., Exploring Engineering : An Introduction to Engineering and Design, , , Academic Press, 2010