Course Unit Title	**MES552 Energy and Environmental Evaluation Tools**
Programme of study	MSc in Energy Systems and the Built Environment
Lecturer	Dr.-Ing. Paris A. Fokaides
Type of course unit	Technical Elective
ECTS	7
Year of study:	2
Semester(s) offered	Fall Semester 2013
Course content	▪ Theoretical background of concepts for environmental and energy evaluation ▪ Analytical and operational tools for environmental and energy evaluation tools ▪ Environmental and energy rating systems ▪ Hands on experience on the application of environmental and energy evaluation tools.
Course modules:	Module 1: Gathering feedback on environmental issues ▪ Role of stakeholders in environmental assessment procedures ▪ Identifying key stakeholders ▪ Techniques of information gathering from stakeholders ▪ Environmental questionnaire design and assessment Module 2: Environmental Management Tools ▪ Reasons for implementing an Environmental Management System (EMS) ▪ EMS planning steps and key elements ▪ Scope and main stages of ISO 14000 ▪ PDCA concept in ISO 14000 ▪ Environmental objectives and targets, system review Module 3: Life Cycle Assessment ▪ Life Cycle Assessment definition ▪ Inputs and outputs of Life Cycle Inventory ▪ Life Cycle Assessment Indicators and results interpretation ▪ Case studies of selected energy related products Module 4: Asset rating of energy projects ▪ Asset rating related definition s in EN 15217 ▪ Buildings and products asset rating ▪ Asset versus operational rating of energy related products ▪ Operational assessment tools for energy products
Textbooks:	Cavallaro, F. (2013). Assessment and simulation tools for sustainable energy systems. Springer,.
Instruction language	English
External reference	link