

Course Unit Title	MES501 Introduction to Energy Technology Systems
Programme of study	MSc in Energy Systems and the Built Environment
Lecturer	Dr.-Ing. Paris A. Fokaides (1/3)
Type of course unit	Compulsory
ECTS	7
Year of study:	1
Semester(s) offered	Fall Semester 2012, 2017
Course content	<ul style="list-style-type: none"> ▪ Principles of thermodynamics and heat transfer ▪ Analysis of energy systems ▪ Heat and power engines ▪ Introduction to renewable energy technologies
Course modules:	<p><u>Module 1: Heat and power engines</u></p> <ul style="list-style-type: none"> ▪ Internal combustion engines (ICE) fundamentals ▪ Otto and Diesel ICEs ▪ Ideal and real analysis of ICEs ▪ Hybrid Engines <p><u>Module 2: Other aspects of energy technology systems</u></p> <ul style="list-style-type: none"> ▪ Energy storage systems types and applications ▪ Alternative energy sources ▪ Energy saving and energy saving in power engines
Textbooks:	John B. Heywood. "Internal Combustion Engine Fundamentals". McGraw Hill Education, 1989.
Instruction language	English
External reference	link