

Course Title	Introduction to Engineering				
Course Code	MME 106				
Course Type	Compulsory				
Level	Undergraduate				
Year / Semester	1 st year / 1 st Semester				
Teacher's Name	Theodora Kyratsi				
ECTS	5	Lectures / week	3+1 hours	Laboratories / week	10 hours total (seminars)
Course Purpose and Objectives	The introduction to applied thinking and solving basic engineering problems.				
Learning Outcomes	<ul style="list-style-type: none"> • Define units and unit systems. • Define physical concepts and parameters such as forces, pressure, work, energy, temperature, heat transfer. • Apply the basic laws of nature - Newton's Laws, energy conservation, momentum conservation. • Analyze simple systems/ problems from the various sub-disciplines of mechanical engineering such as statics and dynamics of rigid bodies, thermodynamics, heat transfer and fluid flow. • Familiarize with the profession of the Mechanical Engineer. 				
Prerequisites	None	Required	None		
Course Content	Units and unit systems - Physical concepts such as forces, pressure, work, energy, temperature, heat – Newton's Laws – Motion – Inertial and Non-inertial Reference Frames – Work and Energy – Equilibrium – Energy conservation – Momentum conservation – Law of Gravity – States of Matter – Density and Pressure – Heat and Internal Energy – Heat Capacity and Specific Heat - The First Law of Thermodynamics. Introduction to the profession of the Mechanical Engineer through seminars from professional engineers working in various sectors of the Cypriot economy. The students have the opportunity to discuss on various issues at the end of each presentation.				
Teaching Methodology	<ul style="list-style-type: none"> • Lectures and tutorials • Seminars given by professional Mechanical Engineers (under the series of seminars "Horizons in Mechanical Engineering"). • Communicative, Collaborative • During the first week of the semester the students receive the course syllabus, which includes the course content, bibliography, learning outcomes, assessment and office hours. 				
Bibliography	<ul style="list-style-type: none"> • Serway. R.A., <i>Physics for Scientists and Engineers</i> (selected chapters), Greek translation by L. Resvanis, Volumes I and II. 				
Assessment	<ul style="list-style-type: none"> • Midterm exam 40% • Final exam 60% 				

Language	Greek
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