a) General			
School	ENGINEERING		
Academic unit	MECHANICAL ENGINEERING		
Level of studies	Undergraduate		
Course code	MM002Y04	*Semester*	2
Course title	**Mechanics II**		

Independent teaching activities	*Weekly teaching hours*	*ECTS*
Lectures	4	4.5
Laboratory exercises	0	

Course type	General background
Course category	Compulsory
Prerequisite courses	-
Language of instruction and examinations	Greek
Is the course offered to Erasmus students	No
Course website (url)	https://eclass.uniwa.gr/courses/MECH137/

b) Learning outcomes and general competences

b1. Learning outcomes

Upon successful completion of this course, the student will be able to:

- Realize the basic concepts of kinematic and dynamics
- Understand the basic principles of engineering mechanics & solve complex engineering problems
- Analyse the mechanisms that are subject to dynamic stresses
- Recognise & Evaluate dynamic loading / systems.

b2. General competences

- Apply Mechanics theory to several engineering problems
- Working independently
- Team work

c) Syllabus

Kinematics of Particles, Kinetics of Particles: Newton's Second Law, Kinetics of Particles: Energy and Momentum Methods, Impulse and Momentum, Impacts, Systems of Particles, Kinematics of Rigid Bodies, Plane Motion of Rigid Bodies: Forces and Accelerations, Plane Motion of Rigid Bodies: Energy and Momentum Methods, Kinetics of Rigid Bodies in Three Dimensions, Mechanical Vibrations

d) Teaching and learning methods - Evaluation

Delivery	Face-to-face, Distance learning	
Use of information and communications technology	- Multimedia applications - MS Teams and eclass - Open courses	
Teaching methods	*Activity*	*Semester workload*
	Lectures	52
	Tutorials	0
	Laboratory exercises	0
	Computational exercises	0

	Individual work	78
	Course total	130
Student performance evaluation	Final Exam	
e) Suggested bibliography		
1. Beer, F.P., Jhonston, E. R. and Cornwell, P.J. (2016). *Vector Mechanics for Engineers.* 11th Ed. Ελληνική Έκδοση, Εκδόσεις Τζιόλα.		