Syllabus

Basic data of the subject	
University/Faculty	**University of Applied Sciences in Ferizaj**
Academic unit:	**Faculty of Engineering and Informatics**
Title of the subject:	**Dynamics**
Level:	**Bachelor**
Course Status:	**Core**
Year of studies:	**2**
Number of hours per week:	**4**
Value of Credits - ECTS:	**5**
Time / location:	
Course lecturer:	**Prof.dr. Bujar Pira**
Contact details:	**bujar.pira@ushaf.net**
Course Description	Dynamics is part of the Mechanics which studies the laws of motion under the action of forces, namely Dynamics studies the motion, the causes that cause it, and the consequences that result from it.
Objectives of the course:	The purpose of this course is to provide students with basic knowledge in the field of dynamics, Forces, energy, work, power, etc., and the connection between them.
Expected learning outcomes:	Upon successful completion of this subject, student will be able to: • know about the subject matter and the laws of dynamics • know the dynamics of material point • know for vibration free movement not extinct at the point straight • know the general laws of dynamics that point and material system

Contribution to the student load (which must correspond with learning outcomes)			
Activity	**Hour**	**Day/Week**	**In total**
Lectures with lab tutorials	4	15	60
Internship			
Contacts with teacher / consultations	1	1	1
Field exercises			
Midterm, seminars and projects.			
Homework			
Self-learning time student (at the library or at home)	4	15	60
Final preparation for the exam	6	3	27

Time spent on evaluation (tests, quiz and final exam)	2		2
Projects and presentations.			
Total			**150**

Teaching methodology:	Lectures and exercises combined with tutorials and classroom exercises
Assessment methods:	Final exam rated 100% of the mark. The exam consists of numerical and theoretical parts.
Literature	
Basic Literature:	Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003.
Additional Literature:	Prof.Asoc.Dr. Ahmet Shala, Ushtrime Dr.Inxh. Fetah S. Jagxhiu: Mekanika pjesa III (Dinamika), Prishtinë, 1985 Thanas Gaçe: Mekanika teorike III (Dinamika), Tiranë, 1984.
The ratio of theory and practice	60% theory with 40% numerical exercises

Designed learning plan	
Week:	**Lectures and exercises to be held**
Week one:	Introduction to Dynamics Literature:(Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003)
Week two:	The dynamics of free and non-free material points Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week three:	Differential equations of point motion Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week four:	Direct oscillations of a point Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week five:	Dallamber's principle of free and not free points Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week six:	The impulse of force, the amount of motion of a point and its laws, the moment of the amount of motion, and its laws. Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week seven:	The force and force of the concrete case and the kinetic energy of the point Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week eight:	The relative motion of the material point

	Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week nine:	Basic notions of material system dynamics Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week ten:	General laws of dynamics of the material system Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week eleven:	The kinetic energy and forces of the material system forces on the fundamental movements of the system Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week twelve:	Rigid body dynamics Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week thirteen:	Rotation of the solid body around the stationary axis Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week fourteen:	Fundamentals of analytical mechanics Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003
Week fifteen:	Lagrangian equations of the second kind. Literature: Dr.sc. Ahmet Geca: DINAMIKA, Prishtinë 2003

Academic policies and rules of conduct
Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.