UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2012/13/1
Course:	Technical Mechanics III. (Kinematics)
Code:	VEMKGEB143M
Responsible department:	Department of Mechanical Engineering
Department code:	MKGE
Responsible instructor:	dr. Imre Timár

Course objectives:

To familiarization of motion of single particle and rigid body. Kinematics and dinamics.

Course content:

Kinematics of single particle, law of moving, velocity, acceleration. Curves of moving, Newton's laws of motion, energie of moving. Law of power, law of work, compulsion moving of single particle. Kinematics of rigid body. Velocity, acceleration. Plane motion of rigid body, Figure of velocity and acceleration. Peregrination of pole, cycle of inflexion and cycle of tangens. Test Relative motion. Kinematics of rigid body, vektor systems of rigid body. Law of power, law of work. Collision. Generalized coordinates and one degree of freedom of a mechanical system. Lagrange equations of the first order. Test Vibration of system with one degree o f freedom.

Requirements, evaluation and grading:

Minimum pass mark from papers (30 %) and prepare one individual project

Required and recommended readings:

Béda-Bezák: Kinematika és dinamika, Tk.Kiadó, Bp., 1991.; M.Csizmadia-Nándori: Mozgástan, Nemzeti Tk.Kiadó, 1997.