NAME OF THE SUBJECT:	CODE:	HOURS:			
Mechatronics systems	KMWMR5ABNE		*ELMÉLET / KONZULTÁCIÓ*	*GYAKORLAT*	*LABOR*
		NAPPALI:			
		HETI 1		0	2
		LEVELEZŐ:			
		Féléves 4		0	8

CREDITS:	PREREQUISITES:	
3	…………………………… teljesítése	
REQUIREMENT:		
Exam		

SUBJECT LEADER:	RANK:	FACULTY AND DEPARTMENT:
Dr. Schuster György	docens	Kandó Kálmán faculty of electrical engineering

EVALUATION AND CONTROL PROCEDURES:

At the end of the semester, an exam is taken on the subject, the material of which is the material of lectures and laboratory exercises. A prerequisite for a successful exam is at least a sufficient level of knowledge of both theoretical and practical knowledge. The exam mark is the arithmetic mean of the marks obtained for practical and theoretical knowledge.

DESCRIPTION OF EDUCATIONAL MATERIAL:

Theory
The topic, areas and fields of application of mechatronics.
Fine mechanical system elements, mechanisms, operations. Special micromechanical elements, procedures, operations. Sensors. Contact, elastic, optical, magnetic live sensors.
Their applicability, accuracy, linearizations.
Method of processing.
Structure of systems, method of design, disturbances and their elimination.
Measurement and operation problems. Signal processing, signal conditioning.
Processing equipment and transmission of information.
Electrical motors.
Pneumatic, hydraulic and fluid systems. Questions of their application.
Laboratory
Sensor measurement, optical sensors and signal conditioning.
Sensor measurement, capacitive sensor circuits and their measurement.
Sensor measurement, inductive sensor circuits and their measurement.
Building a complex system.

COMPETENCIES::

Students should be able to design, analyze, rate, and troubleshoot the most commonly used mechatronic applications.

IRODALOM:

1. Materials published by instructors.
2. http://www.mogi.bme.hu/TAMOP/mechatronikai_berendezesek_tervezese/book.html
3.