SUBJECT PAGE

OE-KVK ELECTRICAL ENGINEERING BSC ENGLISH LANGUAGE TRAINING
BASICS OF PROFESSIONAL

SUBJECT NAME:	***CODE(S):***	***HOURS:***
General engineering studies I	KEXAM5ABNE	*LECTURE / CONSULTATION* *PRACTICE* *LABORATORY* *FULL TIME:* Weekly 0 1 1 *CORRESPONDENCE:* Semester *DISTANT LEARNING:* Semester
CREDITS: 3 ***REQUIREMENTS:*** Semester mark	***PREREQUISITE(S):***	
SUBJECT LEADER:	***POST:***	***FACULTY AND INSTITUTE:***
Dr. Bugyjás József	Senior lecturer	Kandó Kálmán Faculty of Electrical Engineering Institute of Microelectronics and Technology

DESCRIPTION OF THE SUBJECT:

Balance of forces in electromechanical structures and devices: basic concepts and laws, forces, basic calculation methods, methods of calculation of resultant forces, calculation of centre of gravity, determination of first order moment and of reaction force, concept of constraints.
Basics of stress analysis: concept and kinds of strains, strain functions and diagrams, general problems of design for stress, stress and deformation states, stresses and deformations in bars.
Dynamics of electromechanical structures and devices: kinematics of mechanisms and of their elements, kinetics of electromechanical structures and of their elements. Thermal stresses.
Elements of electromechanical structures and devices: locking elements, moving/mobile elements, driving- and actuating elements.
Assessment and evaluation:
Students are recommended to attend lectures, class meetings are mandatory.
Requirements of the signature:
- test encompassing lecture topics
- home assignment and a presentation about it.

Admittance to examination is a home assignment and presentation submitted on due date and at least 40% level on each mandatory test.
Failed tests can be made up last week.
Missing home assigments can be made-up till the last class meeting for a fee.
Prerequisites of the advanced examination are the minimum of mid-semestrial results of 70%.

COMPETENCES:

- Knowledge of the principles of operation and structural components of equipment and devices used in the field of electrical engineering.
- Able to apply the learning, knowledge acquisition, and data collection methods of the special field.

LITERATURE:

R.C. Hibbeler: Mechanics of Materials 2011 Prencice Hall ISBN-13 978-981-06-8509-6
Putoki István: Basics of mechanics 213/2004 Budapest
Meriam: Engineering Mechanics Statics SI version 2008 Wiley ISBN 13: 9780471787020

Jim Morrison: Statics for Engineers 2009 Wiley ISBN 13: 9780470745564
Strauch: Classical Mechanics 2009 Springer ISBN 13: 9783540736158