



COURSE DATASHEET

Semester:	2014/15/1
Course:	Laboratory practices of Electronics
Code:	VEMKFIB232E
Responsible department:	Institute of Physics and Mechatronics
Department code:	MKFI
Responsible instructor:	dr. István Szalai

Course objectives:

The main objectives of this course to provide practical knowledge in the field of electric circuits and measurement technics of physical quantities.

Course content:

1. Roles of the laboratory, Safety regulation, Practical information. 2. Measurements with RLC circuit. 3. Examination of passive four-poles. 4. Semiconductor devices I: diode, transistor. 5. Semiconductor devices II: special circuits 6. Conversion from AC to DC current with semiconductors and passive elements. 7. Signal amplification with transistors. 8. Basic circuits of analog amplifiers. 9. Analog and digital comparators 10. Measurements with AD/DA converters 11. Measurement of the temperature with sensors. 12. Measurement of the magnetic field with Hall sensor. 13. Measuring the conductivity of some solutions. 14. RC oscillator 15. Written exam from 13 topics

Requirements, evaluation and grading:

practical mark

Required and recommended readings:

Fizika laboratóriumi gyakorlatok. Veszprémi Egyetemi Kiadó Fizika és elektronika laboratóriumi gyakorlatok, Veszprémi Vegyipari Egyetem, 1981.