

## Assessment and subject description

<b>Óbuda University</b>		Kandó Kálmán Faculty of Electrical Engineering			Institute of Microelectronics and Technology	
Subject name and code: <b>Electronics II.</b> KEXEL2EBNF				<b>Credits: 4</b>		
<b>Full-time, autumn Semester</b>						
Course: <b>Electrical engineering</b>						
Responsible:	<b>Csikósné Dr. Pap Andrea</b>		Teaching staff:	<b>Horváth Márk</b>		
Prerequisites:	Electronics I.					
Contact hours per week:	Lecture: 1	Class discussion.: 0	Lab hours: 2	Tutorial: 0		
Assessment and evaluation:	<b>written exam</b>					
<b>Subject description</b>						
<i>Aims:</i> to obtain basic understanding of the principles and operation of often used circuits and methods of analysing them.						
<b>Lecture topics</b>						
				<b>Week</b>	<b>Hours</b>	
Active filters with opamps, oscillators theory				<b>2.</b>	<b>2</b>	
Voltage references, voltage and current stabilisers with opamps						
Multivibrators				<b>4.</b>	<b>2</b>	
Differential amplifiers				<b>6.</b>	<b>2</b>	
3-stage transistor amplifier				<b>8.</b>	<b>2</b>	
Thermal resistance, heatsinks, component packaging and data sheet information				<b>10.</b>	<b>2</b>	
Switching mode DC-DC and AC-DC supplies				<b>12.</b>	<b>2</b>	
Complementary (push-pull) end-stage (power) amplifiers				<b>14</b>	<b>2</b>	
<b>Laboratory topics</b>						
				<b>Session</b>	<b>Hours</b>	
Tuned analog circuits (active filters, oscillators)				<b>1.</b>	<b>4</b>	
Multivibrators				<b>2.</b>	<b>4</b>	
Symmetric differential amplifiers				<b>3.</b>	<b>4</b>	
Linear applications of operational amplifiers				<b>4.</b>	<b>4</b>	
Complementary power amplifiers				<b>5.</b>	<b>4</b>	
Time for repeating or finishing measurements				<b>6.</b>	<b>4</b>	
Time for repeating or finishing measurements				<b>7.</b>	<b>4</b>	

### **Assessment and evaluation:**

Participation on laboratories is mandatory and lab reports have to be submitted and accepted in order to be eligible for the exam.

The laboratory sessions have to be finished and reports submitted before the start of the exam period. Missed laboratory sessions have to be completed at a time discussed with the teacher. Unfinished sessions can be continued later as well. There is finite time and place for repeated measurements, therefore missing more than one session without written reason can lead to banning from the subject.

Requirements for starting a laboratory session:

- Presentation of solved homework questions.
- Writing a short test from the questions in the lab guide.
- Having already submitted the lab report for the previous session (if applicable).
- Being in a state and health fit for measurement.

Lab report creation guide is available on the [mti.kvk.uni-obuda.hu](http://mti.kvk.uni-obuda.hu) webpage. Lab reports that are not following the guide will be rejected and have to be rewritten by the deadline set by the teachers.

Participation on lectures is mandatory and will be documented. Missing more than the required (1/3) of lectures can lead to banning.

Exam contains theoretical and calculation exercises. Any complaints about the correction of exams will be considered only after checking the class participation list and the notes the student took in classes.

### **Suggested material:**

[mti.kvk.uni-obuda.hu](http://mti.kvk.uni-obuda.hu) => downloads

U.Tietze, Ch.Schenk: Electronic Circuits