

Assessment and subject description

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