Assessment and subject description

Óbuda University Kandó Kálmán Faculty of Electrical Engineering			Institute of Microelectronics and Technology	
Subject name and code: Physics Full-time, Fall Semester **2018-2019/II.** **Credits: 4**				
Course: Technical Management ***BSc***				
Responsible:	**Dr. Katalin Gambár Ph.D**	Teaching staff:	**Dr. Katalin Gambár Ph.D**	
Prerequisites:				
Contact hours per week:	Lecture: 2	Class discussion: 1	Lab hours: -	Tutorial: -
Assessment and evaluation:	test (problem solving), written exam			

Subject description

Aims: To give solid bases for the other professional subjects of the curriculum, to promote the better understanding of the problems from the viewpoint of Physics.

Topics to be covered: Mechanics. Thermodynamics. Optics.

Topics	Week	Lessons
Mechanics: Kinematics of a mechanical particle	**1.**	**2+1**
Mechanics: Kinetics of a mechanical particle	**2.**	**2+1**
Kinematics and Kinetics of a system of mechanical particles.	**3.**	**2+1**
Oscillations.	**4.**	**2+1**
Waves. Sounds	**5.**	**2+1**
Thermodynamics: Main laws of thermodynamics 0 and I. Ideal gases.	**6.**	**2+1**
Thermodynamics cycles. Main law of thermodynamics II. and III.	**7.**	**2+1**
The theory of special relativity	**8.**	**2+1**
The boundary of the classical concepts: photo effect, Compton effect, wave-particle duality, Quantum mechanics	**9.**	**2+1**
Break	**10.**	**2+1**
Test	**11.**	**2+1**
Models of atom	**12.**	**2+1**
Condensed matter physics	**13.**	**2+1**
Repair test	**14.**	**2+1**

Assessment and evaluation

Requirements of the signature: less than 30% missed classes, write one of the two tests minimum 50%.
Type of exam: written.

Evaluation: The final grade is made by adding the points from the test and the exam.Test - maximum 50 points, exam - maximum 50 points.
Summary of points: maximum points can be obtained by summation: 50+50 = 100.
The levels for grades are:

Evaluation	**Points obtained**
1	0 – 49
2	50 – 61
3	62 –74
4	75– 74
5	88 – 100

Suggested material

Alvin Hudson, Rex Nelson: University Physics

The Feynman Lectures on Physics.

Balázs-Sebestyén: Fizika OE KVK 2065 (in Hungarian).

Comment:
Minor shifts may occur, because lecturers take into account levels of understandings and ability of notes-taking of the students, and because lecturers show examples belong to the given chapters.