

## Assessment and subject description

<b>Óbuda University</b> Kandó Kálmán Faculty of Electrical Engineering		Institute of Microelectronics and Technology		
<b>Subject name and code: Physics I. KMEFI11AND and KEXFI1ABNE</b> Full-time, Fall Semester 2018-2019/I. <b>Credits: 4</b>				
Course: <b>Electrical Engineer BSc</b>				
Responsible:	<b>Dr. Katalin Gambár Ph.D</b>	Teaching staff:	<b>Dr. Katalin Gambár Ph.D</b>	
Prerequisites:				
Contact hours per week:	Lecture: 2	Class discussion: 1	Lab hours: -	Tutorial: -
Assessment and evaluation:	test (problem solving), written exam			
<b>Subject description</b>				
<i>Aims:</i> 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.				
<i>Topics to be covered:</i> Mechanics. Thermodynamics. Optics.				
<b>Topics</b>			<b>Week</b>	<b>Lessons</b>
Mechanics. Mathematical bases. Basic concepts.			<b>1.</b>	<b>2</b>
Kinematics of a mechanical particle.			<b>2.</b>	<b>2</b>
Kinetics of a mechanical particle.			<b>3.</b>	<b>2</b>
Kinematics and Kinetics of a system of mechanical particles.			<b>4.</b>	<b>2</b>
Oscillations.			<b>5.</b>	<b>2</b>
Waves. Sounds			<b>6.</b>	<b>2</b>
Thermodynamics. Main laws of thermodynamics 0 and I. Ideal gases.			<b>7.</b>	<b>2</b>
Holiday			<b>8.</b>	<b>2</b>
Thermodynamics cycles. Main law of thermodynamics II. and III.			<b>9.</b>	<b>2</b>
Thermodynamics. Statistical concepts.			<b>10.</b>	<b>2</b>
Break			<b>11.</b>	<b>2</b>
Test			<b>12.</b>	<b>2</b>
Optics.			<b>13.</b>	<b>2</b>
Repair test			<b>14.</b>	<b>2</b>

### 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:

<b>Evaluation</b>	<b>Points obtained</b>
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.