

Identification	Subject	Physics 1 - 6 ECTS credits	
	Department	Physics and Electronics	
	Program	Undergraduate	
	Term	Fall 2020	
	Instructor	NasimFazli	
	E-mail:	Nasim.fazli@kharaz.org	
	Phone:		
	Classroom/hours		
	Office hours		
Prerequisites	no		
Language	English		
Compulsory/Elective	Compulsory		
Description	This course covers the principles of mechanics, heat, fluids, oscillations, waves and sound. Emphasis is on conceptual development and numerical problem solving. A detailed schedule of topics can be found later in this syllabus.		
Required textbooks and course materials	<i>Fundamentals of Physics, Halliday and Resnick, 9th edition</i>		
Course website			
Course outline	This course of physics I provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Lectures include basic concepts of motion, forces, energy, heat, Newton's laws, fluids thermodynamics, thermal physics, work and energy, power. Upon completion, students should be able to describe examples and applications of the principles studied.		
Course objectives	This course will help students to receive idea of the main physical phenomena and the major physical laws. The course of the general physics will give the chance to students to study motion laws, movement of a solid body, surface phenomena, will be able to analyze the types of motion, Newton's laws. At the end of course the students will be able to understand fundamentals of classical physics, to solve physical problems of mechanics and molecular physics.		
Learning outcomes	<ul style="list-style-type: none"> • What students should know by the end of the course: • Velocity, acceleration, types of motions, fields, Gravitation field, harmonic oscillations, pendulum, temperature, pressure, work and quantity of heat, fluids, the Carnot cycle, entropy, viscosity, Stokes formula, turbulence, Hook's law, simple harmonic oscillator, Doppler effect. 		
Teaching methods	Lecture		x
	Experiential exercise		x
	Assisted work		x
	Assisted lab work		
	Others		
Evaluation	Methods	Date/deadlines	Percentage (%)
	Midterm Exam		30
	Class Participation and Attendance	At each lesson	10
	Quizzes	During the semester, total 4 quizzes, for each 5 point	20
	Lab Exercises		-
	Project (3 phases)		-
	Final Exam		40
	Total		100
Policy	<ul style="list-style-type: none"> • NO CELL PHONES are allowed during lecture and lab sessions. PLEASE turn them off before lecture! (Not silent or vibrating mode) • No late assignments will be accepted without prior arrangement with the instructor for acceptable excuses. Medical and family emergency will be considered on case-by-case basis. • No late homework will be accepted. Homework is to be completed on an individual basis. Students may discuss homework with classmates, but students are responsible for your own work. If students have consulted 		

classmates, please note the individuals name on the top of students' assignment.

- Quizzes may be given unannounced throughout the term and will count as one homework. There will be no make-up quizzes.
- No make-up exams. If students miss an exam, a zero score will be assigned to the missed exam.
- If students should miss class due to personal emergency or medical reasons, please notify the instructor by email immediately. A doctor's note will be required for make-up work.
- Students are responsible for completing the reading assigned from the textbook related to the covered topics and for checking email regularly for important information and announcements related to the course.
- University policy on academic honesty concerning exams and individual work will be strictly enforced.
- BE ON TIME!

Tentative Schedule

Week	Date/Day (Tentative)	Topics	Textbook/Assignments
1	16.09.2020 19.09.2020	Measurement	<i>1-1 Fundamentals of Physics, Halliday and Resnick, 9th edition</i>
2	23.09.2020 26.09.2020	Motion along straight line	1-2
3	30.09.2020 03.10.2020	Vectors	1-3
4	07.10.2020 10.10.2020	Motion in two and three dimension	1-4
5	14.10.2020 17.10.2020	Motion in two and three dimension	<i>2-1 Fundamentals of Physics, Halliday and Resnick, 9th edition</i>
6	21.10.2020 24.10.2020	Force and motion 1	2-2
7	28.10.2020 31.10.2020	Some application of Newton's laws	2-3
8	04.11.2020 07.11.2020	Force and motion 2	
9	11.11.2020 14.11.2020	Midterm Exam,	<i>3-1 Fundamentals of Physics, Halliday and Resnick, 9th edition</i>
10	18.11.2020 21.11.2020	Kinetic Energy and Work	3-2
11	25.11.2020 28.11.2020	Kinetic Energy and Work	3-3
12	02.12.2020 05.12.2020	Pontential Energy and Consevation of Energy	3-4
13	09.12.2020 12.12.2020	Potential Energy and Conservation of Energy	<i>4-1 Fundamentals of Physics, Halliday and Resnick, 9th edition</i>
14	16.12.2020 19.12.2020	Center of Mass and linear momentum	4-2
15	23.12.2020 26.12.2020	Rotation	4-3
		Final Exam	

