Identification	Subject P	PHSC 111 - Physics 1 - 6 ECTS credits			
	<b>Department</b> P	Physics and Electronics			
	Program U	Indergraduate			
	<b>Term</b> F	Fall 2021			
	Instructor A	Assoc. Prof. Dr. Vusala Eminova			
	E-mail: vu	saleeminova84@gmail.com			
	Phone:				
	Classroom/hours				
	Office hours				
Prerequisites					
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 svllabus.				
Required textbooks	Fundamentals of Physics, Serway, Halliday and Resnick. 9th edition				
and course materials					
Course outline	This course of physics	I provide a conceptually-based exp	osure to the fundamental		
	principles and processe	es of the physical world. Lectures in	clude basic concepts of		
	motion forces energy	heat Newton's laws fluids thermo	odynamics thermal physics		
	work and energy nowe	er Upon completion students shou	ld be able to describe		
	avamplas and application	one of the principles studied	id be able to deseribe		
	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				
	analyze the types of mo	ation Newton's laws At the end of	Course the students will be		
	able to understand fund	damentals of classical physics to so	lye physical problems of		
	mechanics and molecular physics				
	I mechanics and molecin	lar physics			
Learning outcomes	What students should be a student should be student should be student should be a	iar physics. uld know by the end of the cours	e.		
Learning outcomes	What students shou     Velocity_accelerat	ar physics. uld know by the end of the cours ion types of motions fields Gra	e: avitation filed harmonic		
Learning outcomes	What students show     Velocity, accelerate     oscillations, pendu	uld know by the end of the cours ion, types of motions, fields, Gradum temperature pressure work	e: avitation filed, harmonic k and quantity of heat		
Learning outcomes	<ul> <li>What students show</li> <li>Velocity, accelerate oscillations, penductions, pen</li></ul>	ar physics. uld know by the end of the cours ion, types of motions, fields, Gra lum, temperature, pressure, work cycle, entropy, viscosity, Stokes	e: avitation filed, harmonic k and quantity of heat, formula_turbulence		
Learning outcomes	<ul> <li>What students show</li> <li>Velocity, accelerate oscillations, pendur fluids, the Carnot or Hook's law simple</li> </ul>	ar physics. uld know by the end of the cours ion, types of motions, fields, Gra ilum, temperature, pressure, work cycle, entropy, viscosity, Stokes e harmonic oscillator. Doppler e	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect		
Learning outcomes	<ul> <li>What students show</li> <li>Velocity, accelerate oscillations, pendu fluids, the Carnot of Hook's law, simple</li> </ul>	ar physics. uld know by the end of the cours ion, types of motions, fields, Gra lum, temperature, pressure, worl cycle, entropy, viscosity, Stokes e harmonic oscillator, Doppler e	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect.		
Learning outcomes Teaching methods	<ul> <li>What students show</li> <li>Velocity, accelerate oscillations, pendur fluids, the Carnot of Hook's law, simple</li> <li>Lecture</li> </ul>	lar physics. uld know by the end of the cours ion, types of motions, fields, Gra lum, temperature, pressure, worl cycle, entropy, viscosity, Stokes e harmonic oscillator, Doppler e	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect. +		
Learning outcomes Teaching methods	<ul> <li>What students show</li> <li>Velocity, accelerate oscillations, pendur fluids, the Carnot or Hook's law, simple</li> <li>Lecture</li> <li>Experiential exercise</li> </ul>	ar physics. uld know by the end of the cours tion, types of motions, fields, Gra lum, temperature, pressure, work cycle, entropy, viscosity, Stokes e harmonic oscillator, Doppler e	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect. + +		
Learning outcomes Teaching methods	<ul> <li>What students shout</li> <li>Welocity, accelerate</li> <li>Oscillations, penduce</li> <li>fluids, the Carnot of Hook's law, simple</li> <li>Lecture</li> <li>Experiential exercise</li> <li>Assisted work</li> </ul>	lar physics. uld know by the end of the cours ion, types of motions, fields, Gra ilum, temperature, pressure, work cycle, entropy, viscosity, Stokes e harmonic oscillator, Doppler e	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect. + + +		
Learning outcomes Teaching methods	What students shou     What students shou     Velocity, accelerate     oscillations, pendu     fluids, the Carnot of     Hook's law, simple     Lecture     Experiential exercise     Assisted work     Assisted lab work     Others	lar physics. uld know by the end of the cours tion, types of motions, fields, Gra lum, temperature, pressure, worl cycle, entropy, viscosity, Stokes e harmonic oscillator, Doppler e	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect. + +		
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Learning outcomes Teaching methods Evaluation	What students shou     What students shou     Velocity, accelerate     oscillations, pendu     fluids, the Carnot of     Hook's law, simple     Lecture     Experiential exercise     Assisted work     Assisted lab work     Others     Methods     Midterm Exam     Class Participation ar	Iar physics.         uld know by the end of the cours         ion, types of motions, fields, Gra         ilum, temperature, pressure, worl         cycle, entropy, viscosity, Stokes         e harmonic oscillator, Doppler e         Date/deadlines         ad         At each lesson	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect. + + + Percentage (%) 30 10		
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Learning outcomes Teaching methods Evaluation Policy	<ul> <li>What students shout</li> <li>What students shout</li> <li>Velocity, accelerate oscillations, pendute fluids, the Carnot of Hook's law, simplete the texperiential exercise</li> <li>Assisted work</li> <li>Assisted lab work</li> <li>Others</li> <li>Methods</li> <li>Midterm Exam</li> <li>Class Participation and Attendance</li> <li>Quizzes</li> <li>Final Exam</li> <li>Total</li> <li>NO CELL PHO turn them off befor</li> <li>No late assignministructor for accept considered on case</li> <li>No late homeweindividual basis. St</li> </ul>	Iar physics.         uld know by the end of the cours         ion, types of motions, fields, Gra         ilum, temperature, pressure, worl         cycle, entropy, viscosity, Stokes         e harmonic oscillator, Doppler e         Date/deadlines         nd         At each lesson         During the semester, total 4         quizzes, for each 5 point         ONES are allowed during lecture ar         re lecture! (Not silent or vibratingm         ments will be accepted without prio         ptable excuses. Medical and family         cyck will be accepted. Homework is         tudents may discuss homework witl	e: avitation filed, harmonic k and quantity of heat, formula, turbulence, ffect. + + + + - <b>Percentage</b> (%) 30 10 20 40 100 ad lab sessions.PLEASE ode) r arrangement with the emergency will be to be completed on an n classmates,but		

		classmates, please note the individuals name on the top of students'			
		assignment.			
		• Quizzes may be given unannounced throughout the term and will countas of			
		homework. There will be no make-upquizzes.			
		• No make-up exams. If students miss an exam, a zero score willbe			
		assigned to the missedexam.			
		• If students should miss class due to persona	al emergency ormedical		
		reasons, please notify the instructor by email in	nmediately. A doctor's note		
		will be required for make-up work.	5		
		• Students are responsible for completing t	he reading assigned from the		
		textbook related to the covered topics and fo	r checking email regularly for		
		important information and announcements rela	ted to the course		
		University policy on academic honesty con	cerning exams and individual		
		work will be strictly enforced	certifing exams and marviduar		
		• BE ONTIME!			
		Tentetive Schedule			
		Tentative Schedule			
	Date/Day	Topics	Textbook/Assignments		
Week	(Tentative)				
1	29.09.2021	Measurement and Vectors.	1. Serway P, Modern physics, 2003		
	04.10.2021	Short description: Units of measure. Concepts of			
		vectors and action with them. Scalar and vectorial	2. Serway P, Classical mechanics,		
		quantities.	3. Handnotes given by teacher		
2	06.10.2021	What is physics? Motion in One Dimension.	1. Serway P, Modern physics, 2003		
	08.10.2021				
		Short description:	2. Serway P, Classical mechanics,		
		Information on a physical concept - matter	3. Handnotes given by teacher		
		Application of standards in physics Units of	8		
		measure Concepts of vectors and action with			
		them			
3	11 10 2021	Concert of force Newton's Lows	1 Servey P. Modern physics 2002		
5	11.10.2021	Concept of force. Newton's Laws.	1. Serway F, Wodern physics, 2003		
	13.10.2021		2 Sarway P. Classical machanics		
		Snort description:	2. Serway 1, Classical Incentances, 3. Handnotes given by teacher		
		Concept of force. Types of force and	5. Handholes given by leacher		
		representation of force. Use of force. Concept of			
		the center of gravity. Methods of finding of the			
		center of gravity. Types of stability.			
4	18.10.2021	Newton's Law of Universal Gravitation. Keepler's	1. Serway P, Modern physics, 2003		
	20.10.2021	Law.			
		Short description:	2. Serway P, Classical mechanics,		
		Measuring the Gravitational Constant.	3. Handnotes given by teacher		
		Gravitational force. Keepler's Law and the motion			
		of planets. The Gravitational field.			
5	25.10.2021	Work and Power. Work Done by a Constant	1. Serway P, Modern physics, 2003		
	27.10.2021	Force.			
		Short description:	2. Serway P, Classical mechanics,		
		Work Done by a Varying Force. Kinetic Energy	3. Handnotes given by teacher		
		and the Work–Kinetic Energy Theorem. The	6		
		Nonisolated System—Conservation of Energy.			
		Power			
6	01 11 2021	Midterm Exam			
0	03 11 2021	Problem solving			
7	08 11 2021	Potential Energy Potential Energy of a System	1 Serway P. Modern physics 2003		
/	10 11 2021	Short description.	1. Serway 1, Wodern physics, 2005		
	10.11.2021	The Isolated System Conservation of Mechanical	2 Serway P Classical mechanics		
		Energy Conservative and Nonconcervative	2. Set way 1, Classical mechanics, 3. Handnotes given by teacher		
		Energy. Conservative and Nonconservative	J. Handholes given by leacher		
		Forces. Unanges in Mechanical. Energy for			
		INOnconservative Forces. Relationship Between .			
	1 . 11	Conservative Forces and Potential Energy.			
8	15.11.2021	Simple harmonic motion	1. Serway P, Modern physics, 2003		
	17.11.2021	Short description:			
		Simple harmonic motion. The simple pendulum.	2. Serway P, Classical mechanics,		
		Waves. Types of waves. Period, frequency and	3. Handnotes given by teacher		
		wave speed. Wave equations. Wave intensity.			

9	22.11.2021	Kinetic theory of ideal gases.	1. Serway P, Modern physics, 2003
	24.11.2021		
		Short description:	2. Serway P, Classical mechanics,
		Kinetic theory of ideal gases. Barometric medium.	3. Handnotes given by teacher
		Law of Boltzmann. The Celsius, Fahrenheit, and	
		Kelvin Temperature Scales.	
10	29.11.2021	Midterm Exam	
	01.12.2021	Problem solving	
11	06.12.2021	Pressure. Buoyant Forces and Archimedes's	1. Serway P, Modern physics, 2003
	08.12.2021	Principle	• – •
		Short description:	2. Serway P, Classical mechanics,
		Information about pressure in liquids and gases.	3. Handnotes given by teacher
		Concept of buoyancy. Concept and application of	
		the law of Archimedes.	
12	13.12.2021	Fluid Dynamics. Bernoulli's Equation .	1. Serway P, Modern physics, 2003
	05.12.2021	Short description:	
		Fluid Dynamics. Bernoulli's Equation .Other	2. Serway P, Classical mechanics,
		Applications of Fluid Dynamics.	3. Handnotes given by teacher
	20.12.2021	Wave motion.	1. Serway P, Modern physics, 2003
13	22.12.2021	Short description:	
		Propogation of a distutbance. Sinusoidal Waves.	2. Serway P, Classical mechanics,
		The speed of waves. Reflection and transmission.	3. Handnotes given by teacher
		The linear wave equation.	
14	27.12.2021	Midterm Exam	
	29.12.2021	Problem solving	
15		Final Exam	

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