Lecture Plan

Name of the College: Government College of Arts, Science and Commerce. Sanquelim - Goa

Name of Faculty: Vidhita Parab	**Subject:** Physics	
Paper code: PHY131	**Program: F.Y.B.Sc**	**Division:**
Academic year: 2024-25	**Semester: I**	**Total Lectures: 45**

Course Objectives: To understand history of physics and to study more about the scientist who have the contribution in all the fields of physics.

Course Outcome: Student will be able to

1. Understand that the development of Physics was incremental.
2. Realise that a few great men and women influenced the development of physics.
3. Analyse different laws and theories of physics and their impact on modern science.
4. Understand that results that could not be explained often led to the introduction of radical new physics.

Student Learning Outcome: **Able to understand history of physics and will learn about all the scientists.**

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books

June- july	28-06-2024	06-07-2024	4	Unit 1: An introduction to the Science of Galileo			1. I. Glynn, Elegance in Science, Oxford University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
				Unit 1: An introduction to the Science of Galileo			
				Unit 1: An introduction to the Science of Galileo			
				Unit 1: An introduction to the Science of Galileo			
	08-07-2024	13-07-2024		Unit 1: An introduction to the Science of Galileo			
				Unit 2: Halley, Kepler and Newton and their Physics			
			3	Unit 2: Halley, Kepler and Newton and their Physics			
	15-07-2024	20-07-2024		Unit 2: Halley, Kepler and Newton and their Physics			
				Unit 2: Halley, Kepler and Newton and their Physics			
			3	Unit 2: Halley, Kepler and Newton and their Physics			1. I. Glynn, Elegance in Science, Oxford

	22-07-2024	27-07-2024		Unit 2: Halley, Kepler and Newton and their Physics			University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
				Unit 3: Isaac Newton his Mechanics and his Gravity			
			3	Unit 3: Isaac Newton his Mechanics and his Gravity			
August	29-07-2024	03-08-2024		Unit 3: Isaac Newton his Mechanics and his Gravity			
				Unit 3: Isaac Newton his Mechanics and his Gravity			
			3	Unit 3: Isaac Newton his Mechanics and his Gravity			
	05-08-2024	10-08-2024		Unit 3: Isaac Newton his Mechanics and his Gravity			
				Unit 4: Boltzmann, Maxwell and other giants of Classical Physics			1. I. Glynn, Elegance in Science, Oxford University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of
			3	Unit 4: Boltzmann, Maxwell and other giants of Classical Physics			
	12-08-2024	17-08-2024	3	Unit 4: Boltzmann, Maxwell and other giants of Classical			

				Physics			the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
				Unit 4: Boltzmann, Maxwell and other giants of Classical Physics			
				Unit 4: Boltzmann, Maxwell and other giants of Classical Physics			
	19-08-2024	24-08-2024		Unit 4: Boltzmann, Maxwell and other giants of Classical Physics			1. I. Glynn, Elegance in Science, Oxford University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
				Unit 5: Coulomb, Faraday, Maxwell: Electricity and Magnetism			
			3	Unit 5: Coulomb, Faraday, Maxwell: Electricity and Magnetism			
	26-08-2024	31-08-2024		Unit 5: Coulomb, Faraday, Maxwell: Electricity and Magnetism			
				Unit 5: Coulomb, Faraday, Maxwell: Electricity and Magnetism			
			3	Unit 5: Coulomb, Faraday, Maxwell: Electricity and			

				Magnetism			
September	02-09-2024	05-09-2024		Unit 5: Coulomb, Faraday, Maxwell: Electricity and Magnetism			
	13-09-2024	14-09-2024		Unit 6: Atomic theory, the periodic table, Mendeleev, Dalton, and Lavoisier			
			2	Unit 6: Atomic theory, the periodic table, Mendeleev, Dalton, and Lavoisier			
	16-09-2024	21-09-2024		Unit 6: Atomic theory, the periodic table, Mendeleev, Dalton, and Lavoisier			1. I. Glynn, Elegance in Science, Oxford University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
				Unit 6: Atomic theory, the periodic table, Mendeleev, Dalton, and Lavoisier			
			3	Unit 6: Atomic theory, the periodic table, Mendeleev, Dalton, and Lavoisier			
	23-09-2024	28-09-2024		Unit 6: Atomic theory, the periodic table, Mendeleev, Dalton, and Lavoisier			
			3	Unit 7: The wave-particle duality of light, Max Planck, Neils			

				Bohr, Albert Einstein and Quantum Physics			
				Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			1. I. Glynn, Elegance in Science, Oxford University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
October	30-09-2024	05-10-2024		Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			
				Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			
				Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			
			3				
	07-10-2024	12-10-2024		Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			1. I. Glynn, Elegance in Science, Oxford University Press 2010 2. J. Gribbin, Science a History, Penguin, 2009. 3. J. Gribbin and M. Ribbin, Out of
				Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			
			3				

					Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			the Shadow of a Giant, William Collins, 2018. 4. M. Mosley. and J. Lynch, The Story of Science, Octopus Publishers, 2010.
		14-10-2024	22-10-2024		Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			
					Unit 7: The wave-particle duality of light, Max Planck, Neils Bohr, Albert Einstein and Quantum Physics			
				3	Revision			

		Component	**Max Marks**
		ISA 1	7.5
	Assessment Rubrics	ISA 2	7.5
		Practical	
		Project	
		Semester End Exam	60