TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Mr. Kamaljeet Singh
Subject/Course: Mechanics
Semester: 1st (Section A & B)

Department: Physics
Programme: B.Sc. Physical Sciences

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Fundamentals of Dynamics: Rigid body, Moment of Inertia, Radius of Gyration, Theorems of perpendicular and parallel axis (with proof), Moment of Inertia of ring, Disc, Angular Disc, Solid cylinder, Solid sphere, Hollow sphere, Rectangular plate, Square plate, Torque, Rotational Kinetic Energy, Angular momentum, Law of conservation of angular momentum, Rolling motion. condition for pure rolling, acceleration of body rolling down an inclined plane, Fly wheel, Moment of Inertia of an irregular body.	01-08-25 to 31-08-25
2.	Elasticity: Deforming force, Elastic limit, stress, strain and their types, Hooks law, Module of elasticity Relation between shear angle and angle of twist, elastic energy stored/volume in an elastic body, Elongation produced in heavy rod due to its own weight and elastic potential energy stored in it, Poisson's ratio and its limiting value, Relation between Young modulus, Bulk modulus and Poisson ratio. Derive the Relation between Young's modulus, Bulk modulus and Modulus of rigidity. Torque required for twisting cylinder, Bending of beam, bending moment and its magnitude, Bending of cantilever (loaded by a weight W at its free end).	01-09-25 to 30-09-25
3.	Special Theory of Relativity: Michelson's Morley experiments and its outcome, Postulate of special theory of relativity, Lorentz Transformation, Simultaneity and order of events, Lorentz contraction, Time dilation, Relativistic transformation of velocity, relativistic addition of velocities, variation of mass-energy equivalence.	01-10-25 to 31-10-25
4.	Gravitation and central force motion: Law of gravitation, Potential and field due to spherical shell and solid sphere. Motion of a particle under central force filed, Two body problem and its reduction to one body problem and its solution, determination of g by means of bar pendulum, Normal coordinates and normal modes, Normal modes of vibration for given spring	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Mr. Mukesh
Subject/Course: MDC (Physics Fundamentals-I)
Semester: 1st Section-B

Department: Physics
Programme: UG

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Physics-Nature, scope & excitement, Major discoveries in physics, major contribution by Indian Physicists. System of Measuring Units-Need for measurement, measuring process, concept of mass, length, time; Fundamental and derive units, system of units, concepts of error, types of error (only definition), Vernier caliper, Screw Gauge	01-08-25 to 31-08-25
2.	Scalar and Vector quantities, distance and displacement, uniform motion and non-uniform motion, average and instantaneous speed, average and instantaneous velocity, acceleration; graphical analysis of straight line motion-distance- time graph, velocity-time graph.	01-09-25 to 30-09-25
3.	Force, inertia, mass, momentum, Newton's law of motion, daily life applications of Newton's laws of motion.Universal law of gravitation and its importance, acceleration due to gravity and free fall of a body; mass and weight of an object on earth and moon.	01-10-25 to 31-10-25
4.	Work, energy, types of energy-Kinetic energy and Potential energy, P.E. of an object at a height; law of conservation of energy and its applications. Conservation of linear and angular momentum, elastic and inelastic collisions and conservation laws in collisions- importance in daily life	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Dr. Narender Kumar
Subject/Course: Moder n Physics
Semester: 5th Section A

Department: Physics
Programme: B.Sc. Physical Science

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Introductory Quantum Mechanics: Need of Quantum Mechanics, Planck's quantum hypothesis and Black body Radiation (Qualitative only), photoelectric effect, Compton effect, de-Broglie hypothesis, de-Broglie wave, wave packet, phase and group velocities, Time-dependent and time-independent Schrodinger equations, Properties of wave function, particle confined in a one-dimensional infinite box: energy eigen functions and eigenvalues. Heisenberg's Uncertainty Principle (Qualitative Idea)	01-08-25 to 31-08-25
2.	Solid State Physics: Crystalline state, crystal lattice, basis, lattice translation vectors, primitive and non-primitive unit cells, Bravais lattices in two and three dimensions, Miller Indices, crystallographic planes, interplanar spacing, simple crystal structures: NaCl, diffraction of waves by crystals, Bragg's law, Idea of Reciprocal Lattice.	01-09-25 to 30-09-25
3.	Atomic and Molecular Physics: Bohr model, Sommerfeld theory(qualitative), Larmor's theorem (qualitative), Vector Atom Model, electron spin, space quantization, spin-orbit Interaction energy, LS and JJ coupling, Zeeman effect, Lande's g-factor.	01-10-25 to 31-10-25
4.	Nuclear and Particle Physics: Composition of nucleus, stability of nucleus, nuclear properties, nuclear size, spin, parity, magnetic moment, quadrupole moment, binding energy of nucleus, Semi- empirical Mass formula, classification of fundamental particles, Quark and Lepton, Hadrons, Baryons, Mesons, different types of nuclear interactions.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Dr. Narender Kumar
Subject/Course: VOC (Refrigeration and air conditioning)
Semester: 5th Section A

Department: Physics
Programme: B.Sc. Physical Science

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Food Preservation: Introduction, factors contributing to food spoilage, causes of food spoilage, methods of food preservation, freezing method of food preservation, preservation of food with direct contact of liquid N2, freeze drying, preservation of different products, cold storage and commercial cabinets	01-08-25 to 31-08-25
2.	Commercial Applications of air-conditioning: Introduction, airconditioning of houses, offices, hotels, restaurants, departmental stores, theatres, auditoriums, hospitals and medical stores.	01-09-25 to 30-09-25
3.	Ice-Manufacturing: Introduction, principles of ice production, different methods of ice manufacturing, treatment of water for making ice, brines, freezing tanks, ice cans, quality of ice.	01-10-25 to 31-10-25
4.	Industrial Applications of Refrigeration: Introduction, importance of relative humidity in different industries, ice-cream manufacturing, refrigeration for breweries, selection of refrigerant for breweries, use of liquid N2 for fabric, quality, air conditioning in textile and photographic industries	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Mr. Ashish Kumar
Department: Physics
Subject/Course: Thermodynamics and statistical physics
Programme: B.Sc. Physical Science
Semester: 3rd (Section A)

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	THERMODYNAMICS-I Laws of Thermodynamics: Thermodynamic Description of system: Zeroth Law of thermodynamics. First law of thermodynamics and internal energy, conversion of heat into work, Various Thermodynamical Processes, Applications of First Law: Work Done during Isothermal and Adiabatic Processes, Compressibility and Expansion Coefficient, Reversible and irreversible processes, Second law of thermodynamics, Entropy, Carnot's cycle & Carnot's theorem, Entropy changes in reversible and irreversible processes, Entropy-temperature diagrams, Third law of thermodynamics, Unattainability of absolute zero.	01-08-25 to 31-08-25
2.	THERMODYNAMICS-II Thermodynamic Potentials: Enthalpy, Gibbs, Helmholtz and Internal Energy functions, Maxwell's relations and applications - Joule-Thompson Effect, Clausius-Clapeyron Equation, Expression for (CP – CV), CP/CV, TdS equations.	01-09-25 to 30-09-25
3.	Statistical Physics-I Basics idea of probability, Priori probability, Statistical probability, permutation and combination, distinguishable and indistinguishable particles Distribution of N (for N= 2, 3, 4) distinguishable and indistinguishable particles in two boxes of equal size, microstates and macrostates, thermodynamical probability, constraints and accessible states, statistical fluctuations, entropy and probability; Concept of phase space, division of phase space into cells, postulates of statistical mechanics; Classical and quantum statistics, basic approach to these statistics, Maxwell-Boltzmann statistics applied to an ideal gas in equilibrium-energy distribution law, Maxwell's distribution of speed & velocity (derivation required), most probable speed, average and r.m.s. speed, mean energy for Maxwellian distribution	01-10-25 to 31-10-25
4.	Statistical Physics-II Need of Quantum statistics- classical versus quantum statistics, BoseEinstein energy distribution Law, Application of B. E. Statistics to Planck's radiation law, Fermi-Dirac energy distribution Law, Fermi energy and Fermi temperature; F. D. energy distribution Law for electron gas in metals, zero point energy, average speed (at 0 K) of electron gas	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Mr. Yashpal
Department: Physics
Subject/Course: Thermodynamics and statistical physics
Programme: B.Sc. Physical Science
Semester: 3rd (Section B)

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	THERMODYNAMICS-I Laws of Thermodynamics: Thermodynamic Description of system: Zeroth Law of thermodynamics. First law of thermodynamics and internal energy, conversion of heat into work, Various Thermodynamical Processes, Applications of First Law: Work Done during Isothermal and Adiabatic Processes, Compressibility and Expansion Coefficient, Reversible and irreversible processes, Second law of thermodynamics, Entropy, Carnot's cycle & Carnot's theorem, Entropy changes in reversible and irreversible processes, Entropy-temperature diagrams, Third law of thermodynamics, Unattainability of absolute zero.	01-08-25 to 31-08-25
2.	THERMODYNAMICS-II Thermodynamic Potentials: Enthalpy, Gibbs, Helmholtz and Internal Energy functions, Maxwell's relations and applications - Joule-Thompson Effect, Clausius-Clapeyron Equation, Expression for (CP – CV), CP/CV, TdS equations.	01-09-25 to 30-09-25
3.	Statistical Physics-I Basics idea of probability, Priori probability, Statistical probability, permutation and combination, distinguishable and indistinguishable particles Distribution of N (for N= 2, 3, 4) distinguishable and indistinguishable particles in two boxes of equal size, microstates and macrostates, thermodynamical probability, constraints and accessible states, statistical fluctuations, entropy and probability; Concept of phase space, division of phase space into cells, postulates of statistical mechanics; Classical and quantum statistics, basic approach to these statistics, Maxwell-Boltzmann statistics applied to an ideal gas in equilibrium-energy distribution law, Maxwell's distribution of speed & velocity (derivation required), most probable speed, average and r.m.s. speed, mean energy for Maxwellian distribution	01-10-25 to 31-10-25
4.	Statistical Physics-II Need of Quantum statistics- classical versus quantum statistics, BoseEinstein energy distribution Law, Application of B. E. Statistics to Planck's radiation law, Fermi-Dirac energy distribution Law, Fermi energy and Fermi temperature; F. D. energy distribution Law for electron gas in metals, zero point energy, average speed (at 0 K) of electron gas	01-11-25 to 25-11-25
5.	Revision	26-11-25

		to 01-12-25

Name of the Teacher: Ms. Rachna
Subject/Course: MDC (Physics Fundamentals-I)
Semester: 1st Section-A & C

Department: Physics
Programme: UG

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Physics-Nature, scope & excitement, Major discoveries in physics, major contribution by Indian Physicists. System of Measuring Units-Need for measurement, measuring process, concept of mass, length, time; Fundamental and derive units, system of units, concepts of error, types of error (only definition), Vernier caliper, Screw Gauge	01-08-25 to 31-08-25
2.	Scalar and Vector quantities, distance and displacement, uniform motion and non-uniform motion, average and instantaneous speed, average and instantaneous velocity, acceleration; graphical analysis of straight line motion-distance- time graph, velocity-time graph.	01-09-25 to 30-09-25
3.	Force, inertia, mass, momentum, Newton's law of motion, daily life applications of Newton's laws of motion.Universal law of gravitation and its importance, acceleration due to gravity and free fall of a body; mass and weight of an object on earth and moon.	01-10-25 to 31-10-25
4.	Work, energy, types of energy-Kinetic energy and Potential energy, P.E. of an object at a height; law of conservation of energy and its applications. Conservation of linear and angular momentum, elastic and inelastic collisions and conservation laws in collisions- importance in daily life	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Ms. Rachna
Subject/Course: MDC (Physics Fundamentals-II)
Semester: 3rd Section-A

Department: Physics
Programme: UG

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Basics of semiconductor and semiconductor devices-Atomic structure and energy levels, energy bands (basic idea), definition of conductor, semiconductor and insulators (on the basis of energy gap), Intrinsic semiconductors, extrinsic semiconductors-p-type and n-type semiconductor), P-N junction diode-depletion layer, forward biasing and reverse biasing, V-I characteristics; Working of half wave and full wave rectifiers.	01-08-25 to 31-08-25
2.	Basics of Laser systems - introduction to LASER, important properties of laser light, Principle of laser- Light amplification, population inversion and pumping; Working of laser- schematic diagram for functioning of laser, applications of Lasers in different fields of science and technology.	01-09-25 to 30-09-25
3.	Introduction to nuclear physics I: Atomic nucleus and the nucleons, atomic number, mass number, isotopes, isobars and isotones; nuclear binding energy, Qualitative idea of liquid drop model. Qualitative idea of radioactivity and different type of radioactive decay- α, β, and γ- decay. Nuclear reactions and their types.	01-10-25 to 31-10-25
4.	Introduction to nuclear physics II: Carbon dating, Nuclear fission reaction and its application as a source of energy (nuclear reactor) and hazardous aspect of nuclear fission; Nuclear fusion reaction and source of stellar energy.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Ms. Reena Rani & Ms. Renu Jakhar Department: Physics
Subject/Course: SEC (Basic Instrumentation Skills) Programme: UG
Semester: 3rd Section-B

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Basic of Measurements: Instruments accuracy, precision, sensitivity, resolution range etc. Errors in measurements and loading effects, Voltmeter, Ammeter. Multimeter: Principles of measurement of dc voltage and dc current, ac voltage, ac current and resistance. Specifications of a multimeter and their significance	01-08-25 to 31-08-25
2.	Electrical Instruments: Different types of conductors and cables, Voltage drop and losses across cables and conductors. Insulation. Solid and stranded cable. Resistance, Inductor, Capacitor, Transformer, Basics of wiring-Star and delta connection. Components in Series or in shunt. Response of inductors and capacitors with DC or AC sources	01-09-25 to 30-09-25
3.	Electronic Instruments: PN junction diode, Zenor Diode, LEDs, Solar Cell, Photocell, Soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB. Transistors, Rectifiers. Filter Circuits (Qualitative ideas only)	01-10-25 to 31-10-25
4.	Solar Energy: Solar Energy-Key features, its importance, Merits & demerits of solar energy, Applications of solar energy, Conversion of Solar energy into Electricity - Photovoltaic Effect, photovoltaic cell and its working principle, Different types of Solar cells, Series and parallel connections, Photovoltaic applications: Battery chargers, Load Calculation & Cost Calculation for installing Solar Panels, Domestic electricity, Solar Subsidy schemes.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Ms. Reena Rani & Ms. Renu Jakhar Department: Physics
Subject/Course: SEC (Basic Instrumentation Skills) Programme: UG
Semester: 3rd Section-A

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Basic of Measurements: Instruments accuracy, precision, sensitivity, resolution range etc. Errors in measurements and loading effects, Voltmeter, Ammeter. Multimeter: Principles of measurement of dc voltage and dc current, ac voltage, ac current and resistance. Specifications of a multimeter and their significance	01-08-25 to 31-08-25
2.	Electrical Instruments: Different types of conductors and cables, Voltage drop and losses across cables and conductors. Insulation. Solid and stranded cable. Resistance, Inductor, Capacitor, Transformer, Basics of wiring-Star and delta connection. Components in Series or in shunt. Response of inductors and capacitors with DC or AC sources	01-09-25 to 30-09-25
3.	Electronic Instruments: PN junction diode, Zenor Diode, LEDs, Solar Cell, Photocell, Soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB. Transistors, Rectifiers. Filter Circuits (Qualitative ideas only)	01-10-25 to 31-10-25
4.	Solar Energy: Solar Energy-Key features, its importance, Merits & demerits of solar energy, Applications of solar energy, Conversion of Solar energy into Electricity - Photovoltaic Effect, photovoltaic cell and its working principle, Different types of Solar cells, Series and parallel connections, Photovoltaic applications: Battery chargers, Load Calculation & Cost Calculation for installing Solar Panels, Domestic electricity, Solar Subsidy schemes.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Ms. Reena Rani
Department: Physics
Subject/Course: SEC (Basic IT Tools)
Programme: UG
Semester: 1st Section-B,N,O

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	UNIT-I Introduction to Computer: Computer and Latest IT gadgets, Evolution of Computers & its applications, Basics of Hardware and Software, Application Software, Systems Software, Utility Software. Central Processing Unit, Input devices, Output devices, Computer Memory & storage, Mobile Apps.	01-08-25 to 31-08-25
2.	UNIT-II Introduction to Operating System, Functions of the Operating system, Operating Systems for Desktop and Laptop, Operating Systems for Mobile Phone and Tablets, User Interface for Desktop and Laptop, Task Bar, Icons & shortcuts, Running an Application, Operating System Simple Setting, Changing System Date and Time, Changing Display Properties, To Add or Remove Program and Features, Adding, Removing & Sharing Printers, File and Folder Management.	01-09-25 to 30-09-25
3.	UNIT-III Introduction to Internet and World Wide Web, Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet, Website Address and URL, Popular Web Browsers (Internet Explorer/Edge, Chrome, Mozilla Firefox, Opera etc.), Popular Search Engines, Searching on the Internet.	01-10-25 to 31-10-25
4.	UNIT-IV E-mail: Using E-mails, Opening Email account, Mailbox: Inbox and Outbox, Creating and Sending a new Email, replying to an E-mail message, forwarding an E-mail message, searching emails, Attaching files with email, Email Signature. Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Messaging (WhatsApp, Facebook Messenger, Telegram), Introduction to Blogs, Digital Locker.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Dr. Balkrishna Kandpal
Department: Physics
Subject/Course: SEC (Basic IT Tools)
Programme: UG
Semester: 1st Section-K,L,M,P

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	UNIT-I Introduction to Computer: Computer and Latest IT gadgets, Evolution of Computers & its applications, Basics of Hardware and Software, Application Software, Systems Software, Utility Software. Central Processing Unit, Input devices, Output devices, Computer Memory & storage, Mobile Apps.	01-08-25 to 31-08-25
2.	UNIT-II Introduction to Operating System, Functions of the Operating system, Operating Systems for Desktop and Laptop, Operating Systems for Mobile Phone and Tablets, User Interface for Desktop and Laptop, Task Bar, Icons & shortcuts, Running an Application, Operating System Simple Setting, Changing System Date and Time, Changing Display Properties, To Add or Remove Program and Features, Adding, Removing & Sharing Printers, File and Folder Management.	01-09-25 to 30-09-25
3.	UNIT-III Introduction to Internet and World Wide Web, Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet, Website Address and URL, Popular Web Browsers (Internet Explorer/Edge, Chrome, Mozilla Firefox, Opera etc.), Popular Search Engines, Searching on the Internet.	01-10-25 to 31-10-25
4.	UNIT-IV E-mail: Using E-mails, Opening Email account, Mailbox: Inbox and Outbox, Creating and Sending a new Email, replying to an E-mail message, forwarding an E-mail message, searching emails, Attaching files with email, Email Signature. Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Messaging (WhatsApp, Facebook Messenger, Telegram), Introduction to Blogs, Digital Locker.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Ms. Reena Rani
Department: Physics
Subject/Course: VAC(Human Values & Ethics)
Programme: UG
Semester: 1st Section-C, D

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Course Introduction- Need, Content and Process for Value Education Understanding the need, content and process for Value Education. (Students should be aware of the difference among skills, values and ethics and their respective needs in life.) Classification of Value Education: understanding Personal Values, Social Values, and Moral Values & Spiritual Values; Understanding the difference between ideology and values. Understanding Harmony with self, Society and Nature. Activity: Debate and discussion on the need and nature of value education; Students should be encouraged to find and analyze suitable case studies to understand various types of values.	01-08-25 to 31-08-25
2.	Human Values and Ethics Meaning and nature of human values; Significance of human values in life; Relation between values and ethics. Relevance of Human values: Integrity, Empathy, Loksangrah, Brahmvihara. Theory of Naya (Jainism), Deontology, Virtue Ethics, Utilitarianism Activity: Students should be divided in small groups and should be motivated to reflect upon their values. Teacher should make an environment to make them realize that everyone has a set of values arisen from their family, social, cultural, religious, and political contexts, some of which correspond to more "human" and "universal" frameworks. This exercise is to encourage students to articulate their values and put them into conversation with values from other contexts.	01-09-25 to 30-09-25
3.	Integrated Personality and Well-being Understanding the relationship among: Self, Identity and Personality.Understanding Integrated Personality – with the three gunas theory of Sankhya, the four Antah-karanas (inner instruments) in Yoga, and Panchkosha (five sheaths) in Upanishad. Approaching comprehensive understanding of well-being and its relation to Happiness. Activity: Bhrumadhya Dhyan, Chakra Dhyan, Preksha Dhyan, Sakshi Bhava Dhyan, Vipassana, Yog Nidra, Partipakshabhava (yogic way of cognitive restructuring)	01-10-25 to 31-10-25
4.	Professional Ethics and Global Citizenship Nature, characteristics and scope of professional ethics; Types of Professional Ethics; Professional Values: Trusteeship, Inclusiveness, Commitment, Sustainability, Accountability, Transparency, Impartiality.Values for Global Citizenship: Equality, Justice, and Human Dignity. Nature and need of competency based education; Types of Competencies,Core Competencies: communication, teamwork, planning and achieving goals,Functional Competencies: analytical thinking, knowledge sharing and learning, decision making, partnership building.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Dr. Balkrishna Kandpal
Department: Physics
Subject/Course: VAC (Human Values & Ethics)
Programme: UG
Semester: 1st Section-G

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Course Introduction- Need, Content and Process for Value Education Understanding the need, content and process for Value Education. (Students should be aware of the difference among skills, values and ethics and their respective needs in life.) Classification of Value Education: understanding Personal Values, Social Values, and Moral Values & Spiritual Values; Understanding the difference between ideology and values. Understanding Harmony with self, Society and Nature. Activity: Debate and discussion on the need and nature of value education; Students should be encouraged to find and analyze suitable case studies to understand various types of values.	01-08-25 to 31-08-25
2.	Human Values and Ethics Meaning and nature of human values; Significance of human values in life; Relation between values and ethics. Relevance of Human values: Integrity, Empathy, Loksangrah, Brahmvihara. Theory of Naya (Jainism), Deontology, Virtue Ethics, Utilitarianism Activity: Students should be divided in small groups and should be motivated to reflect upon their values. Teacher should make an environment to make them realize that everyone has a set of values arisen from their family, social, cultural, religious, and political contexts, some of which correspond to more "human" and "universal" frameworks. This exercise is to encourage students to articulate their values and put them into conversation with values from other contexts.	01-09-25 to 30-09-25
3.	Integrated Personality and Well-being Understanding the relationship among: Self, Identity and Personality.Understanding Integrated Personality – with the three gunas theory of Sankhya, the	01-10-25 to 31-10-

	four Antah-karanas (inner instruments) in Yoga, and Panchkosha (five sheaths) in Upanishad. Approaching comprehensive understanding of well-being and its relation to Happiness. Activity: Bhrumadhya Dhyan, Chakra Dhyan, Preksha Dhyan, Sakshi Bhava Dhyan, Vipassana, Yog Nidra, Partipakshabhava (yogic way of cognitive restructuring)	25
4.	Professional Ethics and Global Citizenship Nature, characteristics and scope of professional ethics; Types of Professional Ethics; Professional Values: Trusteeship, Inclusiveness, Commitment, Sustainability, Accountability, Transparency, Impartiality.Values for Global Citizenship: Equality, Justice, and Human Dignity. Nature and need of competency based education; Types of Competencies,Core Competencies: communication, teamwork, planning and achieving goals,Functional Competencies: analytical thinking, knowledge sharing and learning, decision making, partnership building.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25

Name of the Teacher: Ms. Renu Jakhar Department: Physics
Subject/Course: VAC(Human Values & Ethics) Programme: UG
Semester: 1st Section-A, E, F, H

Unit	Name of Topic/Contents	Tentative Dates/Days
1.	Course Introduction- Need, Content and Process for Value Education Understanding the need, content and process for Value Education. (Students should be aware of the difference among skills, values and ethics and their respective needs in life.) Classification of Value Education: understanding Personal Values, Social Values, and Moral Values & Spiritual Values; Understanding the difference between ideology and values. Understanding Harmony with self, Society and Nature. Activity: Debate and discussion on the need and nature of value education; Students should be encouraged to find and analyze suitable case studies to understand various types of values.	01-08-25 to 31-08-25
2.	Human Values and Ethics Meaning and nature of human values; Significance of human values in life; Relation between values and ethics. Relevance of Human values: Integrity, Empathy, Loksangrah, Brahmvihara. Theory of Naya (Jainism), Deontology, Virtue Ethics, Utilitarianism Activity: Students should be divided in small groups and should be motivated to reflect upon their values. Teacher should make an environment to make them realize that everyone has a set of values arisen from their family, social, cultural, religious, and political contexts, some of which correspond to more “human” and “universal” frameworks. This exercise is to encourage students to articulate their values and put them into conversation with values from other contexts.	01-09-25 to 30-09-25
3.	Integrated Personality and Well-being Understanding the relationship among: Self, Identity and Personality.Understanding Integrated Personality – with the three gunas theory of Sankhya, the four Antah-karanas (inner instruments) in Yoga, and Panchkosha (five sheaths) in Upanishad. Approaching comprehensive understanding of well-being and its relation to Happiness. Activity: Bhrumadhya Dhyan, Chakra Dhyan, Preksha Dhyan, Sakshi Bhava Dhyan, Vipassana, Yog Nidra, Partipakshabhava (yogic way of cognitive restructuring)	01-10-25 to 31-10-25
4.	Professional Ethics and Global Citizenship Nature, characteristics and scope of professional ethics; Types of Professional Ethics; Professional Values: Trusteeship, Inclusiveness, Commitment, Sustainability, Accountability, Transparency, Impartiality.Values for Global Citizenship: Equality, Justice, and Human Dignity. Nature and need of competency based education; Types of Competencies,Core Competencies: communication, teamwork, planning and achieving goals,Functional Competencies: analytical thinking, knowledge sharing and learning, decision making, partnership building.	01-11-25 to 25-11-25
5.	Revision	26-11-25 to 01-12-25