SVCR GOVT. DEGREE COLLEGE, PALAMANER

DEPARTMENT OF PHYSICS

B.sc. Programme outcomes

PO1 : To produce graduates who excel in the competencies and values required for leadership to serve a rapidly evolving global community

PO2: To motivate the students to pursue PG courses in reputed institutes.

PO3: To learn the fundamental principles and scientific theorems related to basic sciences and their relevance in daily life

PO4: To kindle the interest for research in students.

PO5: To acquire placement in educational institutions, engineering and Industrial firms

PO6: To endow the students with creative and analytical skills; this will equip them to become Entrepreneurs

B.Sc (MPC, MPCs and MECS)

Programme Specific Outcomes (PSOs)

At the end of the Programme the student will be able to

PSO1 : Interpret the principles, classifications, concepts, theories and mechanisms

PSO2: Analyze hypothesis, procedures, properties, experimental facts and draw conclusions

PSO3: Apply techniques in solving problems, results, sample analysis and production.

PSO4: Discuss the latest trends and applications pertinent to higher studies and employability

PSO5: Exhibit communicative competence and apply skills in computers, creative and Critical thinking, interpersonal relationships and managing emotions in real life Situations

Course specific outcomes:

Course – I: Mechanics and Waves and Oscillations

After study of Mechanics and waves and oscillations Course, the student is able to

CO1: Understand the vector operations, Rotational Dynamics, Energy Transformations through different methods such as collisions, scattering, etc.

CO2: Explain the causes for natural phenomenon like solar system, day seasons etc.

CO3: Record the observations in different situations and exchange the facts from one situation to another.

CO4: Understand the origin of production and transportation of Energy in different modes.

CO5: Choose different measuring tools based on wave properties.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO1	PO2	PO2	PO3	PO4	PO5	PO6	POS1	POS2	POS3	POS4	POS5
CO1	2	2	3	3	4	1	2	4	2	3	4	3
CO2	2	3	2	2	3	2	1	3	1	3	3	3
CO3	2	3	2	1	2	2	2	2	3	2	3	3
CO4	1	3	1	2	3	3	3	3	2	1	2	2
CO5	1	2	3	3	2	4	1	3	1	2	1	1
Avg	1.6	2.6	2.2	2.2	2.8	2.5	1.4	3	1.4	2.2	2.6	2.4

(Note: In mapping the number indicates the performance for Poor:1,Average: 2 ,Good : 3,Excellent:4)

Course-II: "OPTICS"

After study of Optics course, the student is able to

CO1: Understand the nature of light and properties of light.

CO2: Choose appropriate experimental Techniques for measuring Physical Quantities based on optical properties.

CO3: Classify the materials based on optical properties.

CO4: Understand the formation of images, construction of optical instruments.

CO5: Solve real time problems linked to communications and security devices.

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO1	PO2	PO2	PO3	PO4	PO5	PO6	POS1	POS2	POS3	POS4	POS5
CO1	1	2	3	3	3	1	2	3	2	3	3	3
CO2	2	3	2	2	3	2	1	3	1	3	3	3
CO3	2	3	2	1	2	2	2	2	3	2	3	2
CO4	1	3	1	2	3	3	3	3	2	1	2	2
CO5	1	2	3	3	2	4	1	2	1	2	2	2
Avg	1.4	2.6	2.2	2.2	2.6	2.5	1.4	2.6	1.2	2.2	2.6	2.4

Course-III: "THERMO DYNAMICS AND RADIATION PHYSICS"

After study of Thermodynamics and Radiation Physics course, the student is able to

CO1: Understand the relation between different thermodynamic variables, Functioning of Heat engines, conditions for heat energy transportation and distribution.

CO2: Explain conditions for phase changes of matter.

CO3: Estimate the energy changes in reactions.

CO4: Distinguish the materials based on thermal properties.

CO5: Perform Experiment in controlled environment. Develop different measuring techniques using radiation and appreciate the importance of low temperature

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO1	PO2	PO2	PO3	PO4	PO5	PO6	POS1	POS2	POS3	POS4	POS5
CO1	1	2	3	3	3	1	2	3	2	3	3	3
CO2	2	3	2	2	3	2	2	3	2	3	3	3
CO3	2	3	2	3	2	2	2	2	3	2	3	2
CO4	2	3	2	2	3	3	3	3	2	2	2	3
CO5	2	3	3	3	2	3	1	2	1	2	3	2
Avg	1.8	2.8	2.4	2.6	2.6	2.2	2	2.6	2	2.4	2.8	2.6

Course-IV: "ELECTRICITY, MANGNETISM AND ELECTRONICS"

After study of Electricity, Magnetism and Electronics course, the student is able to

CO1: Understand the relation between different electrical variables, Electrical circuits and basic electrical circuits

CO2: Explain the construction of Different electrical Devices.

CO3: Choose appropriate electrical and electronic devices.

CO4: Distinguish and analyze different circuits and Construct suitable Electronic and electrical circuits

CO5: Explain different methods for production and transportation of Electromagnetic energy

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO1	PO2	PO2	PO3	PO4	PO5	PO6	POS1	POS2	POS3	POS4	POS5
CO1	2	3	3	3	3	2	2	3	2	3	3	3
CO2	2	3	2	2	3	2	2	3	2	3	3	3
CO3	2	3	2	3	2	2	2	2	3	2	3	2
CO4	2	3	3	3	3	3	3	3	2	2	2	3
CO5	2	3	3	3	2	3	2	2	2	2	3	2
Avg	2	3	2.6	2.8	2.6	2.4	2.2	2.6	2.2	2.4	2.8	2.6

Course-IV (b): "MODERN PHYSICS"

After Study of Modern Physics course, the student is able to

CO1: Understand the atomic structure and mechanism of emission of energy

CO2: Explain the nature of light and its propagation in quantum mechanical aspect.

CO3: Explain stability of elements and causes for production of high energies

CO4: Understand the modification of properties based on size of the particles

CO5: Understand the behavior of matter at low temperatures

Course Outcomes with Program Outcomes and Program Specific Outcomes

	PO1	PO2	PO2	PO3	PO4	PO5	PO6	POS1	POS2	POS3	POS4	POS5
CO1	2	3	3	3	3	2	2	3	2	3	3	3
CO2	3	3	2	2	3	2	2	3	2	3	3	3
CO3	2	3	2	3	3	3	3	3	3	2	3	2
CO4	3	3	3	3	3	3	3	3	2	3	2	3
CO5	2	3	3	3	2	3	2	2	3	2	3	3
Avg	2.4	3	2.6	2.8	2.8	2.6	2.4	2.8	2.4	2.6	2.8	2.8