I	*Audit Course I :* *Ability Enhancement Course(AEC)*	*Not coming in the normal work load*	*4 (Not added for SGPA / CGPA)*	*4*
II	*Audit Course II :* *Professional Competency Course (PCC)*		*4 (Not added for SGPA / CGPA)*	*4*

c) COURSES IN VARIOUS SEMESTERS
Semester – I (16C)

    (PHY1C01)   Classical Mechanics (4C)
    (PHY1C02)   Mathematical Physics – I (4C)
    (PHY1C03)   Electrodynamics and Plasma Physics (4C)
    (PHY1C04)   Electronics (4C)
    (PHY1L01)   General Physics Practical -I *
    (PHY1L02)   Electronics Practical – I**
    (PHY1A01   Ability Enhancement Course (4C)

Semester – II (22C)

    (PHY2C05)   Quantum Mechanics –I (4C)
    (PHY2C06)   Mathematical Physics – II (4C)
    (PHY2C07)   Statistical Mechanics (4C)
    (PHY2C08)   Computational Physics (4C)
    (PHY2L03)   General Physics Practical - II (3C)*
    (PHY2L04)   Electronics Practical – II (3C)**
    (PHY2A02   Professional Competency Course (4C)

    External Practical Exam for PHY1L01&PHY2L03 together will be conducted at the end of 2nd semester
    ** *External Practical Exam for PHY1L02&PHY2L04 together will be conducted at the end of 2nd semester.*

Semester -III (16C)

    (PHY3C09)   Quantum Mechanics -II (4C)
    (PHY3C10)   Nuclear and Particle Physics (4C)
    (PHY3C11)   Solid State Physics (4C)
    Elective **-**I (4C)
            Project[#]
    (PHY3L05)   Modern Physics Practical –I[##]

Semester -IV (26C)
    (PHY4C12)   Atomic and Molecular Spectroscopy (4C)
    Elective **-**II (4C)

Elective **-**III (4C)
(PHY4P01)   Project (4C)[#]
(PHY4L06)   Modern Physics Practical –II (3C)[##]
(PHY4L07)   Computational Physics Practical (3C)
Viva Voce   (Comprehensive) (4C)

[#]*Project will be started at 3rd semester and external evaluation for PHY4P01 will be conducted at the end of 4th semester.*

[##]*External Practical Exam for PHY3L05 & PHY4L06 together will be conducted at the end of 4th semester*

d) CONSTITUTION OF CLUSTERS

Elective -I Cluster:

(PHY3E01) Plasma Physics
(PHY3E02) Advanced Quantum Mechanics
(PHY3E03) Radiation Physics
(PHY3E04) Digital Signal Processing
(PHY3E05) Experimental Techniques
(PHY3E06) Elementary Astrophysics

Elective -II Cluster:

(PHY4E07) Advanced Nuclear Physics
(PHY4E08) Advanced Astrophysics
(PHY4E09) Astrophysics and Astronomical Data Analysis
(PHY4E10) Advanced Statistical Mechanics
(PHY4E11) Materials Science
(PHY4E12) Electronic Instrumentation
(PHY4E13) Laser Systems, Optical Fibres and Applications
(PHY4E14) Communication Electronics

Elective -III Cluster:

(PHY4E15) Quantum Field Theory
(PHY4E16) Chaos and Nonlinear Physics
(PHY4E17) Advanced Condensed Matter Physics
(PHY4E18) Modern Optics
(PHY4E19) Physics of Semiconductors
(PHY4E20) Microprocessors, Microcontrollers and Applications