



Department of

St. Edmund's College

NAAC Accredited A

Affiliated to North Eastern Hill University

Recognized by the University Grant Commission under 2 (f) and 12 (B) of the UGC Act 1956

Awarded STAR STATUS COLLEGE (DBT, Govt. of India)

✉ Department/HOD Email

🌐 <http://sec.edu.in>

SEMESTER: First [FYUP (NEP)]

PAPER NO: PHY-100

NAME OF PAPER: Mathematical Physics, Properties of matter and Waves

PRACTICAL/THEORY: THEORY cum PRACTICAL

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	III & IV	Damped SHM and Wave motion; Experimental Physics-I
Dr. L. Kurbah	II	Frames of references and Elasticity
B. L. Giri	II	Newton's Laws of motion & rigid body motion
Dr. M. Ram	I	Vector Calculus and Coordinate Systems
Larry. K. Nongbet	I & III	Differential Equations and SHM
Dashan Nongkynrih	II & IV	Fluid Dynamics: Experimental Physics-I

SEMESTER: Second [FYUP (NEP)]

PAPER NO: PHY-150

NAME OF PAPER: Electricity & Magnetism, Optics & Electronics

PRACTICAL/THEORY: THEORY cum PRACTICAL

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	I & IV	Maxwell's equations and Electric circuits & Experimental Physics-II
Dr. L. Kurbah	III	Boolean Algebra and Diodes' applications
B. L. Giri	III	Binary systems and Logic gates
Dr. M. Ram	II	Fermat's principle and its application and Matrix optics
Larry. K. Nongbet	I	Coulomb's Law and Biot-Savart's Law and their applications
Dashan Nongkynrih	II & IV	Theory of Image formation & Experimental Physics-II



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SEMESTER: Third [FYUP (NEP)]

PAPER NO: PHY-200

NAME OF PAPER: Mathematical Physics-II and Experimental Physics III

PRACTICAL/THEORY: THEORY cum PRACTICAL

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	III	Matrices, Jacobian, Beta and Gamma function
Dr. L. Kurbah	II & IV	Second order linear differential equations & Experimental Physics III
Dr. M. Ram	I	Curvilinear Coordinates and Complex variables
Larry. K. Nongbet	IV	Experimental Physics III

SEMESTER: Third [FYUP (NEP)]

PAPER NO: PHY-201

NAME OF PAPER: Heat and Thermodynamics and Experimental Physics IV

PRACTICAL/THEORY: THEORY cum PRACTICAL

Name of the Teacher	Unit	Topics
Dr. L. Kurbah	IV	Experimental Physics IV
B. L. Giri	III	Liquifaction and Radiation
Larry. K. Nongbet	II & IV	Laws of Thermodynamics & Experimental Physics IV
Dashan Nongkynrih	I	Kinetic theory of gases and Transport phenomena



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SEMESTER: Third [FYUP (NEP)]

PAPER NO: MDC-

NAME OF PAPER: Physics Around us

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	II	Elementary ideas of Reflection, Refraction, Spherical mirrors , Lenses and wave motion
Dr. L. Kurbah	III	Elementary ideas of Electric charge, Magnetism and E.M. waves
B. L. Giri	II	Elementary ideas of Reflection, Refraction, Spherical mirrors , Lenses and wave motion
Dr. M. Ram	III	Elementary ideas of Electric charge, Magnetism and E.M. waves
Larry. K. Nongbet	I	Units & Dimensions, concept of motion and Concept of work
Dashan Nongkynrih	I	Units & Dimensions, concept of motion and Concept of work

SEMESTER: Third [FYUP (NEP)]

PAPER NO: VTC-242.2

NAME OF PAPER: ELECTRICAL-1

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. L. Kurbah	I & IV	Basics of Electrical & Practical
Dr. M. Ram	I & IV	Electrical components & Practical
Larry. K. Nongbet	I & II	Electrostatics & Practical
Dashan Nongkynrih	I & III	Electrical Laws & Practical



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SEMESTER: Fourth [FYUP (NEP)]

PAPER NO: PHY-250

NAME OF PAPER: Optics-II & Acoustics

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	III & IV	Physical optics, Fourier analysis and Ultrasonics
Dashan Nongkynrih	I, II & IV	Aberration in images, Interference of light and Acoustics

SEMESTER: Fourth [FYUP (NEP)]

PAPER NO: PHY-251

NAME OF PAPER: Classical Mechanics-1 and Special Theory of Relativity

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. L. Kurbah	I & II	Lagrangian formulation and Legendre transformation
Dr. M. Ram	III & IV	Special Theory of Relativity and its Applications

SEMESTER: Fourth [FYUP (NEP)]

PAPER NO: PHY-252

NAME OF PAPER: Quantum Mechanics-1

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
B. L. Giri	III & IV	Linear vector space and Angular momentum operators
Larry. K. Nongbet	I & II	Origin of Quantum theory, Concept of Wave Functions and Schrodinger Equations



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SEMESTER: Fourth [FYUP (NEP)]

PAPER NO: PHY-253

NAME OF PAPER: Experimental Physics-V

PRACTICAL/THEORY: PRACTICAL

Name of the Teacher	Unit	Topics
Dr. L. Kurbah	No unit	All Experiments
Larry. K. Nongbet	No unit	All Experiments

SEMESTER: Fifth [Non-NEP]]

PAPER NO: PHY05 (T-A)

NAME OF PAPER: Mathematical Physics-II, Quantum Mechanics-II

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
B. L. Giri	IV & V	Quantum Mechanics and applications
Dr. M. Ram	I	Curvilinear coordinates, Matrices and Complex variables
Larry. K. Nongbet	II	Ordinary differential equations and Different polynomials



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SEMESTER: Fifth [Non-NEP]]

PAPER NO: PHY05 (T-B)

NAME OF PAPER: Classical Mechanics, Electrodynamics, Statistical Physics, Energy Sources

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	IV	Thermodynamics, Probability and Statistical Physics
Dr. L. Kurbah		Maxwell Equations, Electric fields & potentials and Electromagnetic waves
Dr. M. Ram	I	Fossil fuels and Energy sources
Dashan Nongkynrih	II	Statistical Physics and Quantum statistics

SEMESTER: Fifth [Non-NEP]]

PAPER NO: PHY05 (P)

NAME OF PAPER: Experimental Physics-IV

PRACTICAL/THEORY: PRACTICAL

Name of the Teacher	Unit	Topics
Dr. M. Lyndem		All Experiments
B. L. Giri	No unit	All Experiments



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PAPER NO: PHY06 (T-A)

NAME OF PAPER: Solid State Physics-II, Electronics-II and FORTRAN Programming

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. L. Kurbah	I & II	Solid state Physics
Dr. M. Ram	IV	FORTRAN
Dashan Nongkynrih	II	Electronics

SEMESTER: Sixth [Non-NEP]]

PAPER NO: PHY06 (T-B)

NAME OF PAPER: Atomic Physics, Molecular Spectroscopy, Nuclear Physics-II, Astrophysics

PRACTICAL/THEORY: THEORY

Name of the Teacher	Unit	Topics
Dr. M. Lyndem	II & III	Spectroscopy and Nuclear Physics
B. L. Giri	I & IV	Vector atom model & Elementary Particles
Larry Kubar Nongbet	I & V	Atomic physics and Astrophysics



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SEMESTER: Sixth [Non-NEP]

PAPER NO: PHY06 (P)

NAME OF PAPER: Experimental Physics-V

PRACTICAL/THEORY: PRACTICAL

Name of the Teacher	Unit	Topics
B. L. Giri	No unit	All Experiments
Dr. M. Ram	No unit	All Experiments

Principal
(In - Charge)
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(Signature of HOD)