

Programme Structure of HPH: B.Sc. in Physics (Hons.)

| SEM | Course CODE | Name of Course | Theory/ Prac. | Credit | Study Hours | TE Full Marks | Assig. Full Marks | Total Marks | Pass Marks 30% | SLM Available In | |
|----------------------------|----------------------------------------|----------------------------|------------------------------------------|------------|-------------|---------------|-------------------|-------------|----------------|------------------|-----|
| 1 st Year | I | CC-PH-01 | Lab -I | Practical | 6 | 180 | 70 | -- | 70 | 21 | ENG |
| | | CC-PH-02 | Lab -II | Practical | 6 | 180 | 70 | -- | 70 | 21 | ENG |
| | | GE-01: # Refer Table below | | Theory | 6 | 180 | 50 | 20 | 70 | 21 | |
| | | AE-BG-11 | * Bengali | Theory | 2 | 60 | 50 | 20 | 70 | 21 | BEN |
| | AE-EG-12 | * English | ENG | | | | | | | | |
| | II | CC-PH-03 | Mechanics and General Physics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | CC-PH-04 | Mathematical Methods in Physics-I | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | GE-02: # Refer Table below | | Theory | 6 | 180 | 50 | 20 | 70 | 21 | |
| AE-ES-21 | | Environmental Studies | Theory | 2 | 60 | 50 | 20 | 70 | 21 | BEN | |
| 2 nd Year | III | CC-PH-05 | Lab -III | Practical | 6 | 180 | 70 | -- | 70 | 21 | ENG |
| | | CC-PH-06 | Lab -IV | Practical | 6 | 180 | 70 | -- | 70 | 21 | ENG |
| | | CC-PH-07 | Mathematical Methods in Physics-II | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | GE-03: # Refer Table below | | Theory | 6 | 180 | 50 | 20 | 70 | 21 | |
| | IV | SE-PH-11 | Electrical Circuits and Network Skills | Theory | 2 | 60 | 50 | 10 | 60 | 18 | ENG |
| | | CC-PH-08 | Electricity and Magnetism | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | CC-PH-09 | Waves and Optics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | CC-PH-10 | Mathematical Methods in Physics - III | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| GE-04: # Refer Table below | | Theory | 6 | 180 | 50 | 20 | 70 | 21 | | | |
| SE-PH-21 | Renewable Energy and Energy Harvesting | Theory | 2 | 60 | 50 | 10 | 60 | 18 | ENG | | |
| 3 rd Year | V | CC-PH-11 | Lab -V | Practical | 6 | 180 | 70 | -- | 70 | 21 | ENG |
| | | CC-PH-12 | Thermodynamics and Statistical Mechanics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | DS-PH-11 | Physics of Devices and Communication | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | DS-PH-21 | DSE Lab- I | Practical | 6 | 180 | 70 | -- | 70 | 21 | ENG |
| | VI | CC-PH-13 | Quantum Physics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | CC-PH-14 | Electronics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | DS-PH-31 | Solid State Physics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| | | DS-PH-41 | Nuclear and Particle Physics | Theory | 6 | 180 | 50 | 20 | 70 | 21 | ENG |
| TOTAL | | | | 140 | | | | 1800 | | | |

GE COMBINATION LIST:

| Subject | SEM-I: GE-01 | SLM Available In | SEM-II: GE-02 | SLM Available In | SEM-III: GE-03 | SLM Available In | SEM-IV: GE-04 | SLM Available In |
|-------------|------------------------------------|------------------|-------------------------------------|------------------|-----------------------------------|------------------|------------------------------------------|------------------|
| Mathematics | GE-MT-11: Statistical Techniques | ENG | GE-MT-21: Dynamical Systems | ENG | GE-MT-31: Applications of Algebra | ENG | GE-MT-41: Modelling and Simulation | ENG |
| Chemistry | GE-CH-11: Basic Physical Chemistry | ENG | GE-CH-21: Basic Inorganic Chemistry | ENG | GE-CH-31: Basic Organic Chemistry | ENG | GE-CH-41: Application Oriented Chemistry | ENG |
| | | | | | | | ‡ GE-CH-42: Approved MOOCs' | |

* Learners have to choose any one from **AE-BG-11: Bengali** or **AE-EG-12: English** as Ability Enhancement Compulsory Course 1

Learners have to choose any one course from each individual GE group of Semester I, II, III and IV.

‡ Learners willing to choose MOOCs course as an option of study are advise to visit University official website for detailed instruction. In this regard, enrolled learners may communicate with Concerned School of Studies for guidance during their study of the programme.