**SCHEME OF B.Sc. (HONS) PHYSICS 2021-24**

|  |  |  |  |  |  |  |  |  |  |  |  |
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| **Sem** | **Course 1** | **Course 2** | **Course 3** | **Course 4** | **Course 5** | **Course 6** | **Course 7** | **Comm Services** | **GP** | **Cont hrs** | **Credits** |
| I | CLL 101 Effective Communication-I2.5(2-0-1) | MAL 101N Fundamentals of Mathematics 4(3-1-0) | PYL 102N Fundamentals of Physics 4(3-0-2) | MAL 109Introduction to Statistics 4(4-0-0)  | CHL100 Environmental Studies3(3-0-0) | CHL111 Fundamentals of Chemistry4(3-0-2) |  | PYS 101(70 hrs) | PYR1001 | 24 | 22.5 |
| II | CLL 102 Effective Communication-II2.5(2-0-1) | PYL 101Waves &Oscillations 4(3-0-2) | MAL 209Data Analysis4(3-0-2) | MAL 106N Basics of Computer Programming4(3-0-2) | BSL101 Entrepreneurship  3(2-0-2)  | CLL 120 Human Values and Professional Ethics2(2-0-0) | PYL307Fiber Optics3(3-0-0) | PYS 102(70 hrs)(2 crdt) | PYR1101 | 27 | 25.5 |
| III | PYL 201Electromagnetic Theory 4(3-1-0) | PYL 106Solid State Physics4 (3-0-2)  | PYL 105Electricity and Magnetism 4(3-0-2) | Prog . Elec. I4 (3-1-0) | Open Elective I3 credits |  |  | PYS 201(35 hrs) | PYR2001 | 21 | 20 |
| IV | PYL207Nuclear Particle and Astrophysics 3(3-0-0) | Electronic DevicesPYL 3044(3-0-2) | PYL 103Applied Mechanics4(3-1-0) | Prog .Elec. II4 (3-0-2) | Open Elective II3 credits | Foreign Language 3(1-2-0) |  | PYS 202(35 hrs)(2 crdt) | PYR2201 | 23 | 24 |
|  |  PYI 240 Summer Internship (0-0-6) 3 |
| V | PYL 104Mathematical Physics I4(3-1-0) | PYL 203NThermodynamics and Statistical Mechanics4(3-0-2)  | PYL 301 Digital Electronics4(3-0-2) | Prog. Elec. III4 (3-0-2) | Open Elective III3 credits | PYD 350Project4(0-0-8) |  | PYS 301(70 hrs) | PYR3001 | 22 | 24 |
| VI | PYL 108Quantum Mechanics4(3-1-0) | PYL202Mathematical Physics II4(3-1-0)  | Prog. Elec. IV4 (3-0-2) | Open Elective IV3 credits | PYL 310 Creativity and innovation outcome (1) | PYD 360Project4(0-0-8) |  | PYS 302(70 hrs)(2 crdt) | PYR3301 | 16 | 23 |
|  |  | Total | 133 | 142 |

**SCHEME OF B.Sc. (HONS) PHYSICS 2020-23**

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| **Sem** | **Course 1** | **Course 2** | **Course 3** | **Course 4** | **Course 5** | **Course 6** | **Course 7** | **Comm Services** | **GP** | **Cont hrs** | **Credits** |
| I | CLL 101 Effective Communication-I2.5(2-0-1) | MAL 101N Fundamentals of Mathematics 4(3-1-0) | PYL 102N Fundamentals of Physics 4(3-0-2) | ENL101 Statistics & Research Methodology-I 4(4-0-0)  | CHL100 Environmental Studies3(3-0-0) | PSL101 Understanding the Constitution 3(3-0-0)  |  | PYS101 (70hrs) | PYR1001 | 22 | 21.5 |
| II | CLL 102 Effective Communication-II2.5(2-0-1) | BSL102 FINE ARTS 2(1-0-2)  | PCL102 Psychology for living 3(2-1-0)  | CHL111 Fundamentals of Chemistry4(3-0-2) | MAL 106N Basics of Computer Programming4(3-0-2) | BSL101 Entrepreneurship 3(2-0-2)  | CLL 120 Human Values and Professional Ethics2(2-0-0) | PYS102 (70hrs)(2 crdt) | PYR1101 | 25 | 23.5 |
| III | PYL 101Waves &Oscillations 4(3-0-2) | PYL 106Solid State Physics4 (3-0-2)  | PYL 105Electricity and Magnetism 4(3-0-2) | Prog . Elec. I4 credits | Open Elective I3 credits | MAL 301Data Analysis3(2-0-2) |  | PYS201 (35hrs) | PYR2001 | 26 | 23 |
| IV | PYL 201Electromagnetic Theory 4(3-1-0) | 4(3-0-2) Electronic DevicesPYL 304 | PYL 103Applied Mechanics4(3-1-0) | Prog .Elec. II4 credits | Open Elective II3 credits |  |  | PYS202 (35hrs)(2 crdt) | PYR2201 | 21 | 22 |
|  |  PYI 240 Summer Internship. (0-0-6) 3 |
| V | PYL 104Mathematical Physics I4(3-1-0) | PYL 203NThermodynamics and Statistical Mechanics4(3-0-2)  | Foreign Language 3(1-2-0) | Prog. Elec. III4 credits | Open Elective III3 credits |  | PYD 350Project4(0-0-8) | PYS301 (70hrs) | PYR3001 | 20  | 23 |
| VI | PYL 108Quantum Mechanics4(3-1-0) | PYL202Mathematical Physics II4(3-1-0)  | PYL 301 Digital Electronics4(3-0-2) | Prog. Elec. IV 4 credits | Open Elective IV3 credits | PYL 310 Creativity and innovation outcome (1) | PYD 350Project4(0-0-8) | PYS302 (70hrs)(2 crdt) | PYR3301 | 21 | 27 |
|  |  | Total | 135 | 143 |

 **SCHEME OF B.Sc. (HONS) PHYSICS 2019-22**

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| **Sem** | **Course 1** | **Course 2** | **Course 3** | **Course 4** | **Course 5** | **Course 6** | **Comm Services** | **GP** | **Cont hrs** | **Credits** |
| I | Waves &OscillationsPYL 101(3-0-0)3 | Mathematical Physics IPYL 104(3-1-0)4 | Applied MechanicsPYL 103(3-1-0)4 | Electricity and MagnetismPYL 105(3-0-2)4 | Effective Communication-ICLL 101(1-0-2) 2 | Foreign LanguageElective(1 2 0)3 | PYS101 (70hrs) | PYR1001 | 22 | 21 |
| II | OpticsPYL 102(3-1-2) 5 | LeadershipSML150(2 1 0) 3 | Solid State PhysicsPYL 106(3-0-2) 4 | Quantum MechanicsPYL 108(3-0-0)3 | Effective Comm.-IICLL 102(1-0-2)2 | CLL 120Human Values(2-0-0)2 | PYS102 (70hrs)(2 crdt) | PYR1101 | 22 | 22 |
| III | Electromagnetic TheoryPYL 201(3-0-2) 4 | Thermal PhysicsPYL203(3-0-2) 4 | Statistical MechanicsPYL 205(3-1-0) 4 | Prog . Elec. ILasers/ Nuclear, Particle and Astro physics/ Fundamentals of Electronic CommunicationPYL110(3-1-0)4 | EVSCH100 (3-0-0) 3 | Open Elective I(3) 3 | PYS201 (35hrs) | PYR2001 | 24 | 23 |
| IV | Atomic and Molecular PhysicsPYL204(3-1-2) 5 |  EntrepreneurshipSML300(2 1 0) 3 | Prog .Elec. IINon Linear Optics/Biophysics/ Polymer Composites ASL 310(3-0-2)4 | Open Elective II(3)3 | Engg. ChemistryCHL150 (2-0-2)3 |  | PYS202 (35hrs)(2 crdt) | PYR2201 | 21 | 21 |
| V | Numerical AnalysisMAL310(3-0-2) 4 | Digital ElectronicsPYL 301(3-1-2) 5 | Prog .Elec.III (MOOC)Experimental and analytical Techniques/Fiber Optics/Microprocessor PYL303(3-0-2)4 | Open Elective III(3)3 | Mathematical PhysicsIIPYL202(3-1-0) 4 |  | PYS301 (70hrs) | PYR3001 | 23 | 21 |
| VI | Nuclear and Particle PhysicsPYL 302(3-1-0)4 | Electronic DevicesPYL 304(3-1-0)4 | Prog . Elec. IV(MOOC)Optical Communication /Thin films and Nanomaterials(3-0-2)4 | Open Elective IV(3)3 | PYD 350Project(0-0-6)3 | Creativity and innovation outcome (1)PYL 310 | PYS302 (70hrs)(2 crdt) | PYR3301 | 16 | 22 |
|  | Total | 128 | 130 |