**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-I  2.5(2-0-1) | | | | MAL 101N Fundamentals of Mathematics  4(3-1-0) | PYL 102N Fundamentals of Physics  4(3-0-2) | MAL 109  Introduction to Statistics 4(4-0-0) | CHL100 Environmental Studies  3(3-0-0) | CHL111 Fundamentals of Chemistry  4(3-0-2) |  | PYS 101  (70 hrs) | PYR100  1 | 24 | 22.5 |
| II | CLL 102 Effective Communication-II  2.5(2-0-1) | | | | PYL 101  Waves &Oscillations  4(3-0-2) | MAL 209  Data Analysis  4(3-0-2) | MAL 106N Basics of Computer Programming  4(3-0-2) | BSL101 Entrepreneurship  3(2-0-2) | CLL 120 Human Values and Professional Ethics  2(2-0-0) | PYL307  Fiber Optics  3(3-0-0) | PYS 102  (70 hrs)  (2 crdt) | PYR110  1 | 27 | 25.5 |
| III | PYL 201  Electromagnetic Theory  4(3-1-0) | | | | PYL 106  Solid State Physics  4 (3-0-2) | PYL 105  Electricity and Magnetism  4(3-0-2) | Prog . Elec. I  4 (3-1-0) | Open Elective I  3 credits |  |  | PYS 201  (35 hrs) | PYR200  1 | 21 | 20 |
| IV | PYL207  Nuclear Particle and Astrophysics 3(3-0-0) | | | | Electronic Devices  PYL 304  4(3-0-2) | PYL 103  Applied Mechanics  4(3-1-0) | Prog .Elec. II  4 (3-0-2) | Open Elective II  3 credits | Foreign Language  3(1-2-0) |  | PYS 202  (35 hrs)  (2 crdt) | PYR220  1 | 23 | 24 |
|  | | | PYI 240 Summer Internship (0-0-6) 3 | | | | | | | | | | | |
| V | PYL 104  Mathematical Physics I  4(3-1-0) | | | | PYL 203N  Thermodynamics and Statistical Mechanics  4(3-0-2) | PYL 301 Digital Electronics  4(3-0-2) | Prog. Elec. III  4 (3-0-2) | Open Elective III  3 credits | PYD 350  Project  4(0-0-8) |  | PYS 301  (70 hrs) | PYR300  1 | 22 | 24 |
| VI | PYL 108  Quantum Mechanics  4(3-1-0) | | | | PYL202  Mathematical Physics II  4(3-1-0) | Prog. Elec. IV  4 (3-0-2) | Open Elective IV  3 credits | PYL 310 Creativity and innovation outcome  (1) | PYD 360  Project  4(0-0-8) |  | PYS 302  (70 hrs)  (2 crdt) | PYR330  1 | 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-I  2.5(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 Studies  3(3-0-0) | PSL101 Understanding the Constitution 3(3-0-0) |  | PYS101 (70hrs) | PYR100  1 | 22 | 21.5 |
| II | CLL 102 Effective Communication-II  2.5(2-0-1) | | | | BSL102 FINE ARTS 2(1-0-2) | PCL102 Psychology for living 3(2-1-0) | CHL111 Fundamentals of Chemistry  4(3-0-2) | MAL 106N Basics of Computer Programming  4(3-0-2) | BSL101 Entrepreneurship 3(2-0-2) | CLL 120 Human Values and Professional Ethics  2(2-0-0) | PYS102 (70hrs)  (2 crdt) | PYR110  1 | 25 | 23.5 |
| III | PYL 101  Waves &Oscillations  4(3-0-2) | | | | PYL 106  Solid State Physics  4 (3-0-2) | PYL 105  Electricity and Magnetism  4(3-0-2) | Prog . Elec. I  4 credits | Open Elective I  3 credits | MAL 301  Data Analysis  3(2-0-2) |  | PYS201 (35hrs) | PYR200  1 | 26 | 23 |
| IV | PYL 201  Electromagnetic Theory  4(3-1-0) | | | | 4(3-0-2) Electronic Devices  PYL 304 | PYL 103  Applied Mechanics  4(3-1-0) | Prog .Elec. II  4 credits | Open Elective II  3 credits |  |  | PYS202 (35hrs)  (2 crdt) | PYR220  1 | 21 | 22 |
|  | | | PYI 240 Summer Internship. (0-0-6) 3 | | | | | | | | | | | |
| V | PYL 104  Mathematical Physics I  4(3-1-0) | | | | PYL 203N  Thermodynamics and Statistical Mechanics  4(3-0-2) | Foreign Language  3(1-2-0) | Prog. Elec. III  4 credits | Open Elective III  3 credits |  | PYD 350  Project  4(0-0-8) | PYS301 (70hrs) | PYR300  1 | 20 | 23 |
| VI | PYL 108  Quantum Mechanics  4(3-1-0) | | | | PYL202  Mathematical Physics II  4(3-1-0) | PYL 301 Digital Electronics  4(3-0-2) | Prog. Elec. IV  4 credits | Open Elective IV  3 credits | PYL 310 Creativity and innovation outcome  (1) | PYD 350  Project  4(0-0-8) | PYS302 (70hrs)  (2 crdt) | PYR330  1 | 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 &Oscillations  PYL 101  (3-0-0)3 | | Mathematical Physics I  PYL 104  (3-1-0)4 | Applied Mechanics  PYL 103  (3-1-0)4 | Electricity and Magnetism  PYL 105  (3-0-2)4 | Effective Communication-I  CLL 101  (1-0-2) 2 | Foreign Language  Elective  (1 2 0)3 | PYS101 (70hrs) | PYR100  1 | 22 | 21 |
| II | Optics  PYL 102  (3-1-2) 5 | | Leadership  SML150  (2 1 0) 3 | Solid State Physics  PYL 106  (3-0-2) 4 | Quantum Mechanics  PYL 108  (3-0-0)3 | Effective Comm.-II  CLL 102  (1-0-2)2 | CLL 120  Human Values  (2-0-0)2 | PYS102 (70hrs)  (2 crdt) | PYR110  1 | 22 | 22 |
| III | Electromagnetic Theory  PYL 201  (3-0-2) 4 | | Thermal Physics  PYL203  (3-0-2) 4 | Statistical Mechanics  PYL 205  (3-1-0) 4 | Prog . Elec. I  Lasers/ Nuclear, Particle and Astro physics/ Fundamentals of Electronic Communication  PYL110  (3-1-0)4 | EVS  CH100  (3-0-0) 3 | Open Elective I  (3) 3 | PYS201 (35hrs) | PYR200  1 | 24 | 23 |
| IV | Atomic and Molecular Physics  PYL204  (3-1-2) 5 | | Entrepreneurship  SML300  (2 1 0) 3 | Prog .Elec. II  Non Linear Optics/Biophysics/ Polymer Composites  ASL 310  (3-0-2)4 | Open Elective II  (3)3 | Engg. Chemistry  CHL150 (2-0-2)3 |  | PYS202 (35hrs)  (2 crdt) | PYR220  1 | 21 | 21 |
| V | Numerical Analysis  MAL310  (3-0-2) 4 | | Digital Electronics  PYL 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 Physics  II  PYL202  (3-1-0) 4 |  | PYS301 (70hrs) | PYR300  1 | 23 | 21 |
| VI | Nuclear and Particle Physics  PYL 302  (3-1-0)4 | | Electronic Devices  PYL 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 350  Project  (0-0-6)3 | Creativity and innovation outcome  (1)  PYL 310 | PYS302 (70hrs)  (2 crdt) | PYR330  1 | 16 | 22 |
|  | | Total | | | | | | | | 128 | 130 |