

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE : BRANCH III - PHYSICS

COURSES OF STUDY

(Effective from the academic year 2015 - 2016)

CHOICE BASED CREDIT SYSTEM

| Subject Code | Title of Course | Credits | Total Hours | | | Exam Hours | Marks | | |
|---|---|---------|-------------------|--------------------|---------------------|------------|-----------------------|--------------|---------|
| | | | Lecture Hours (L) | Tutorial Hours (T) | Practical Hours (P) | | Continuous Assessment | End Semester | Maximum |
| Semester - I | | | | | | | | | |
| 15PH/MC/EL14 | Electronics - I | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/PA14 | Properties of Matter and Atomic Physics | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/P112 | Experimental Physics - I | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Allied Core Offered to the Department of Mathematics | | | | | | | | | |
| 15PH/AC/PH13 | Physics -I | 3 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/AC/P112 | Physics Practicals - I | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Semester - II | | | | | | | | | |
| 15PH/MC/TS24 | Thermal Physics and Statistical Mechanics | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/P222 | Experimental Physics - II | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| 15PH/GC/ES22 | Environmental Studies | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| Allied Core Offered to the Department of Mathematics | | | | | | | | | |
| 15PH/AC/PH23 | Physics - II | 3 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/AC/P222 | Physics Practicals - II | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Semester - III | | | | | | | | | |
| 15PH/MC/ME34 | Mechanics | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/OS34 | Optics and Spectroscopy | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/P332 | Experimental Physics - III | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Allied Core Offered to the Department of Chemistry | | | | | | | | | |
| 15PH/AC/PH33 | Physics - I | 3 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/AC/P132 | Physics Practicals - I | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Semester - IV | | | | | | | | | |
| 15PH/MC/MP44 | Mathematical Physics | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/P442 | Experimental Physics - IV | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Allied Core Offered to the Department of Chemistry | | | | | | | | | |
| 15PH/AC/PH43 | Physics - II | 3 | 3 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/AC/P242 | Physics Practicals - II | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Semester - V | | | | | | | | | |
| 15PH/MC/EM54 | Electromagnetism | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/MM54 | Microprocessors and Microcontrollers | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/SS54 | Solid State Physics | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/P552 | Experimental Physics - V | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |

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| Semester - VI | | | | | | | | | |
| 15PH/MC/EL64 | Electronics - II | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/QR64 | Quantum Mechanics and Relativity | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/NP64 | Nuclear and Particle Physics | 4 | 4 | 0 | 0 | 3 | 50 | 50 | 100 |
| 15PH/MC/P662 | Experimental Physics - VI | 2 | 0 | 0 | 3 | 3 | 50 | 50 | 100 |
| Allied Elective Course offered to CH, BT & ZL | | | | | | | | | |
| 15PH/AE/FN45 | Fundamentals of Nanoscience | 5 | 4 | 1 | 0 | 3 | 50 | 50 | 100 |
| Major Elective Courses | | | | | | | | | |
| 15PH/ME/CS55 | Communication Systems | 5 | 4 | 1 | 0 | 3 | 50 | 50 | 100 |
| 15PH/ME/EN55 | Essentials of Nanoscience | 5 | 4 | 1 | 0 | 3 | 50 | 50 | 100 |
| 15PH/ME/LP55 | Laser Physics | 5 | 4 | 1 | 0 | 3 | 50 | 50 | 100 |
| 15PH/ME/PR55 | Project | 5 | 4 | 1 | 0 | 0 | 50 | 50 | 100 |
| General Elective Courses | | | | | | | | | |
| 15PH/GE/BP22 | Basic Principles of Physics | 2 | 1 | 0 | 1 | - | 50 | - | 100 |
| 15PH/GE/PM22 | Physics of Music | 2 | 1 | 0 | 1 | - | 50 | - | 100 |
| 15PH/GE/BC23 | Basics of Communication Systems | 3 | 3 | 0 | 0 | - | 50 | - | 100 |
| 15PH/GE/DP23 | Digital Photography | 3 | 2 | 0 | 1 | - | 50 | - | 100 |
| 15PH/GE/EP23 | Energy Physics | 3 | 3 | 0 | 0 | - | 50 | - | 100 |
| 15PH/GE/HE23 | Home Electrical Installations | 3 | 2 | 0 | 1 | - | 50 | - | 100 |
| Social Awareness Programme / Service Learning (SAP/SL) | | | | | | | | | |
| 15PH/SA/HH52 | Health and Hygiene | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| 15PH/SA/CW52 | Child Welfare | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| 15PH/SA/CD52 | Care of the Differently Abled | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| 15PH/SA/CA52 | Civic Awareness | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| 15PH/SA/RR52 | Rural Realities - Village Visits | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| 15PH/SA/UR52 | Urban Realities - Underdeveloped Areas (Slums) | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| 15PH/SA/WA52 | Welfare of the Aged | 2 | 2 | 0 | 0 | - | 50 | - | 100 |
| Independent Elective Courses | | | | | | | | | |
| 15PH/UI/AP23 | Astrophysics | 3 | 0 | 0 | 0 | 3 | - | 100 | 100 |
| 15PH/UI/GP23 | Geophysics | 3 | 0 | 0 | 0 | 3 | - | 100 | 100 |