

**M. Sc PHYSICS**

| Code                | Title                                                                                             | Credit |
|---------------------|---------------------------------------------------------------------------------------------------|--------|
| <b>SEMESTER I</b>   |                                                                                                   |        |
| PHY1C01             | Classical Mechanics                                                                               | 4      |
| PHY1C02             | Mathematical Physics - I                                                                          | 4      |
| PHY1C03             | Electrodynamics and Plasma Physics                                                                | 4      |
| PHY1C04             | Electronics                                                                                       | 4      |
| PHY1P01             | General Physics Practical - I                                                                     | *      |
| PHY1P02             | Electronics Practical - I                                                                         | *      |
| PHY1A01             | Ability Enhancement Course (Seminar on Recent Development in Physics - Not Counted for SGPA/CGPA) | 4      |
| <b>SEMESTER II</b>  |                                                                                                   |        |
| PHY2C05             | Quantum Mechanics - I                                                                             | 4      |
| PHY2C06             | Mathematical Physics - II                                                                         | 4      |
| PHY2C07             | Statistical Mechanics                                                                             | 4      |
| PHY2C08             | Computational Physics                                                                             | 4      |
| PHY2P03             | General Physics Practical - II                                                                    | 3      |
| PHY2P04             | Electronics Practical - II                                                                        | 3      |
| PHY2A02             | Professional Competency Course (Professional Training on LaTeX - Not Counted for SGPA/CGPA)       | 4      |
| <b>SEMESTER III</b> |                                                                                                   |        |
| PHY3C09             | Quantum Mechanics - II                                                                            | 4      |
| PHY3C10             | Nuclear & Particle Physics                                                                        | 4      |
| PHY3C11             | Solid State Physics                                                                               | 4      |
| PHY3E07             | Experimental Techniques                                                                           | 4      |
| PHY3P05             | Modern Physics Practical - I                                                                      | *      |
| PHY4Pr              | Project                                                                                           | *      |
| <b>SEMESTER IV</b>  |                                                                                                   |        |
| PHY4C12             | Spectroscopy                                                                                      | 4      |

| Code    | Title                           | Credit |
|---------|---------------------------------|--------|
| PHY4E11 | Material Science                | 4      |
| PHY4E20 | Microprocessor & Applications   | 4      |
| PHY4Pr1 | Project                         | 4      |
| PHY4P06 | Modern Physics Practical II     | 3      |
| PHY4P07 | Computational Physics Practical | 3      |
| PHY4V01 | Viva Voce                       | 4      |

#### M. Sc CHEMISTRY

| Code               | Title                                                                     | Credit |
|--------------------|---------------------------------------------------------------------------|--------|
| <b>SEMESTER I</b>  |                                                                           |        |
| CHE1C01            | Quantum Mechanics and Computational Chemistry                             | 4      |
| CHE1C02            | Elementary inorganic chemistry                                            | 4      |
| CHE1C03            | Structure and reactivity of organic Compounds                             | 4      |
| CHE1C04            | Thermodynamics, kinetics and catalysis                                    | 4      |
| CHE1L01            | Inorganic chemistry practical I                                           | *      |
| CHE1L02            | Organic chemistry Practical I                                             | *      |
| CHE1L03            | Physical chemistry practical I                                            | *      |
| CHE1A01            | Ability Enhancement Course (Industrial Visit - Not Counted for SGPA/CGPA) | 4      |
| <b>SEMESTER II</b> |                                                                           |        |
| CHE2C05            | Group Theory and Chemical Bonding                                         | 3      |
| CHE2C06            | Coordination Chemistry                                                    | 3      |
| CHE2C07            | Organic Reaction Mechanisms                                               | 3      |
| CHE2C08            | Electrochemistry, Solid State Chemistry and Statistical Thermodynamics    | 3      |
| CHE2L04            | Inorganic Chemistry Practical II                                          | 3      |
| CHE2L05            | Organic Chemistry Practical II                                            | 3      |
| CHE2L06            | Physical Chemistry Practical II                                           | 3      |

| Code                | Title                                                                                            | Credit |
|---------------------|--------------------------------------------------------------------------------------------------|--------|
| CHE2A02             | Professional Competency Course (Training on Computational Chemistry - Not Counted for SGPA/CGPA) | 4      |
| <b>SEMESTER III</b> |                                                                                                  |        |
| CHE3C09             | Molecular Spectroscopy                                                                           | 4      |
| CHE3C10             | Organometallic & Bioinorganic Chemistry                                                          | 4      |
| CHE3C11             | Reagents and Transformations in Organic Chemistry                                                | 4      |
| CHE3L07             | Inorganic Chemistry Practical III                                                                | *      |
| CHE3L08             | Organic Chemistry Practical III                                                                  | *      |
| CHE3L09             | Physical Chemistry Practical III                                                                 | *      |
| CHE3E01             | Synthetic Organic Chemistry(Elective)                                                            | 4      |
| <b>SEMESTER IV</b>  |                                                                                                  |        |
| CHE4C12             | Instrumental Methods of Analysis                                                                 | 4      |
| CHE4L10             | Inorganic Chemistry Practical IV                                                                 | 3      |
| CHE4L11             | Organic Chemistry Practical IV                                                                   | 3      |
| CHE4L12             | Physical Chemistry Practical IV                                                                  | 3      |
| CHE4E05             | Industrial Catalysis(Elective)                                                                   | 4      |
| CHE4E08             | Organometallic Chemistry                                                                         | 4      |
| CHE4P01             | Research Project                                                                                 | 4      |
| CHE4V01             | Viva Voce                                                                                        | 2      |

#### M. Sc MATHEMATICS

| Code               | Title                                                  | Credit |
|--------------------|--------------------------------------------------------|--------|
| <b>SEMESTER I</b>  |                                                        |        |
| MTH1C01            | Algebra 1                                              | 4      |
| MTH1C02            | Linear Algebra                                         | 4      |
| MTH1C03            | Real Analysis - I                                      | 4      |
| MTH1C04            | Discrete Mathematics                                   | 4      |
| MTH1C05            | Number Theory                                          | 4      |
| MTH1A01            | Ability Enhancement Course (Not Counted for SGPA/CGPA) | 4      |
| <b>SEMESTER II</b> |                                                        |        |
| MTH2C06            | Algebra II                                             | 4      |
| MTH2C07            | Real Analysis II                                       | 4      |

| Code                | Title                                                     | Credit |
|---------------------|-----------------------------------------------------------|--------|
| MTH2C08             | Topology                                                  | 4      |
| MTH2C09             | ODE and Calculus of Variations                            | 4      |
| MTH2C10             | Operations Research                                       | 4      |
| MTH2A02             | Professional Competency Course(Not Counted for SGPA/CGPA) |        |
| <b>SEMESTER III</b> |                                                           |        |
| MTH3C11             | Multivariable Calculus and Geometry                       | 4      |
| MTH3C12             | Complex Analysis                                          | 4      |
| MTH3C13             | Functional Analysis                                       | 4      |
| MTH3C14             | PDE and Integral Equations                                | 4      |
|                     | Elective - 1                                              | 3      |
| <b>SEMESTER IV</b>  |                                                           |        |
| MTH4C15             | Advanced Functional Analysis                              | 4      |
|                     | Elective - II                                             | 3      |
|                     | Elective - III                                            | 3      |
|                     | Elective - IV                                             | 3      |
| MTH4P01             | Project                                                   | 4      |
| MTH4V01             | General Viva                                              | 4      |

#### M. Sc MICRO BIOLOGY

| Code              | Title                                                 | Credit |
|-------------------|-------------------------------------------------------|--------|
| <b>SEMESTER I</b> |                                                       |        |
| MBG1C01           | General Biochemistry& Microbial Metabolism            | 4      |
| MBG1C02           | Bio-Physics & Instrumentation                         | 3      |
| MBG1C03           | Environmental and Sanitation Microbiology             | 3      |
| MBG1C04           | Agricultural Microbiology& Plant Pathology            | 2      |
| MBG1L01           | Practical I                                           | 4      |
| MBG1L02           | Practical II                                          | 4      |
| Audit Course - I  | Ability Enhancement Course(Not Counted for SGPA/CGPA) | 4      |

| Code                | Title                                                     | Credit |
|---------------------|-----------------------------------------------------------|--------|
| <b>SEMESTER II</b>  |                                                           |        |
| MBG2C05             | Principles of Genetics                                    | 4      |
| MBG2C06             | Food & Dairy Microbiology                                 | 4      |
| MBG2C07             | Industrial Microbiology                                   | 4      |
| MBG2C08             | Immunology                                                | 4      |
| MBG3L03             | Practical III                                             | 4      |
| <b>SEMESTER III</b> |                                                           |        |
| MBG3C09             | Medical Microbiology                                      | 4      |
| MBG3C10             | Molecular Biology                                         | 4      |
| MBG3E03             | Microbial Taxonomy                                        | 4      |
| MBG3L04             | Practical IV                                              | 4      |
| MBG3L05             | Practical V                                               |        |
| <b>SEMESTER IV</b>  |                                                           |        |
| MBG4C11             | Biostatistics and Bioinformatics                          | 4      |
| MBG4E04             | Genetic Engineering                                       | 4      |
| MBG4L06             | Practical VI                                              | 4      |
| MBG4P               | Dissertation                                              | 8      |
| Audit Course - II   | Professional Competency Course(Not Counted for SGPA/CGPA) | 4      |

#### M. Com

| Code               | Title                                          | Credit |
|--------------------|------------------------------------------------|--------|
| <b>SEMESTER I</b>  |                                                |        |
| MCM1C01            | Business Environment& Policy                   | 4      |
| MCM1C02            | Corporate Governance &Business Ethics          | 4      |
| MCM1C03            | Quantitative Techniques for Business Decisions | 4      |
| MCM1C04            | Management Theory and Organizational Behaviour | 4      |
| MCM1C05            | Advanced Management Accounting                 | 4      |
| MCM1A04            | NET Coaching(Not Counted for SGPA/CGPA)        | 4      |
| <b>SEMESTER II</b> |                                                |        |

|                     |                                                     |   |
|---------------------|-----------------------------------------------------|---|
| MCM2C06             | Advanced Corporate Accounting                       | 4 |
| MCM2C07             | Advanced Strategic Management                       | 4 |
| MCM2C08             | Advanced Cost Accounting                            | 4 |
| MCM2C09             | International Business                              | 4 |
| MCM2C10             | Management Science                                  | 4 |
| MCM2A04             | Spreadsheet Application (Not Counted for SGPA/CGPA) | 4 |
| <b>SEMESTER III</b> |                                                     |   |
| MCM3C11             | Financial Management                                | 4 |
| MCM3C12             | Income Tax Law, Practice and Tax Planning I         | 4 |
| MCM3C13             | Research Methodology                                | 4 |
| MCM3EF02            | Elective I - Investment Management                  | 4 |
| MCM3EF01            | Elective II - Financial Market & Institutions       | 4 |
| <b>SEMESTER IV</b>  |                                                     |   |
| MCM4C14             | Financial Derivatives & Risk Management             | 4 |
| MCM4C15             | Income Tax Law, Practice and Tax Planning II        | 4 |
| MCM4EF03            | Elective III –International Finance                 | 4 |
| MCM4EF04            | Elective IV –Advanced Strategic FinancialManagement | 4 |
| MCM4PV01            | Project Work & Comprehensive Viva Voce              | 4 |

#### **M. A JOURNALISM AND MASS COMMUNICATION**

| Code              | Title                                                                      | Credit |
|-------------------|----------------------------------------------------------------------------|--------|
| <b>SEMESTER I</b> |                                                                            |        |
| MCJ1C01           | Introduction to Mass Communication                                         | 4      |
| MCJ1C02           | Reporting News                                                             | 4      |
| MCJ1C03           | Editing News                                                               | 4      |
| MCJ1C04           | Media History                                                              | 3      |
| MCJ1C05           | Communication Laws and Editing                                             | 3      |
| MCJ1L01           | Graphic Design & Print Media Production (Practical)                        | 2      |
| MCJ1A01           | Indian Politics (Ability Enhancement Course - (Not Counted for SGPA/CGPA)) | 4      |

| Code                | Title                                                                               | Credit |
|---------------------|-------------------------------------------------------------------------------------|--------|
| <b>SEMESTER II</b>  |                                                                                     |        |
| MCJ2C01             | Media, Culture and Society                                                          | 4      |
| MCJ2C02             | Advertising and Marketing Communication                                             | 4      |
| MCJ2C03             | Radio and Television Production                                                     | 4      |
| MCJ2C04             | Development Communication                                                           | 3      |
| MCJ2C05             | Global Communication                                                                | 3      |
| MCJ2L01             | Photography and Videography (Practical)                                             | 2      |
| MCJ1A01             | Audio Visual Editing (Professional Competency Course - (Not Counted for SGPA/CGPA)) | 4      |
| <b>SEMESTER III</b> |                                                                                     |        |
| MCJ3C01             | Communication Research                                                              | 4      |
| MCJ3C02             | Public Relations and Corporate Communication                                        | 4      |
| MCJ3C03             | Online Journalism                                                                   | 4      |
| MCJ3C04             | Media Management and Entrepreneurship                                               | 4      |
| MCJ3E01             | Documentary Film Production                                                         | 4      |
| MCJ3E02             | Technical Writing and Documentation                                                 | 4      |
| <b>SEMESTER IV</b>  |                                                                                     |        |
| MCJ4P01             | Dissertation and Viva                                                               | 8      |
| MCJ4C01             | Film Studies                                                                        | 4      |
| MCJ4E01             | Data Journalism                                                                     | 4<br>4 |
| MCJ3E02             | Photo Journalism                                                                    |        |
| MCJ3E01             | Political Economy of Indian Media                                                   |        |