

Syllabus of the Ph.D. Course Work in Chemistry

Total Credit: 8

Total Marks: 8 x 25 = 200

Group – A: Credit 4, which is divided as follows:

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| a) | Review of Research Work and Research Methodology | 2 Credits x 25 = 50 |
| b) | Computer Applications | 1 Credit x 25 = 25 |
| c) | Quantitative Methods / Introduction to Different Instruments | 1 Credit x 25 = 25 |

Group – B: Credit 4, which is divided as follows:

Theoretical Paper as **Module - 1 (Paper: PhDCW/01)** 2 Credits x 25 = 50

Comprising of the followings:

- Polymer and Host Guest Chemistry
- Spectroscopy and Symmetry
- Physico-Chemical Aspects and Redox Properties of Coordination Compounds,
- Photochemistry of Inorganic Compounds and non-covalent interactions,
- Synthetic Organic Chemistry
- Green Chemistry & Catalysis

Theoretical Paper as **Module - 2 (Paper: PhDCW/02)**

2 Credits x 25 = 50

Comprising of the followings:

- Theoretical Chemistry
- Solution Thermodynamics
- Ionic Liquids and Organometallic Catalysis
- Inorganic-Organic Hybrid Materials
- Natural Products Chemistry
- Synthesis and Application of Organic Polymers and Organometallic Compounds