

(4 Lect./Week)
(4 hrs. Lab/Week)
(1 Student's presentation /Week)
Credits -7)

(Total

Paper 703: Research Methodology and Project Work

1. Research methods: – Identification of the research problem – Determining the mode of action – Literature survey – Mode of approach of actual investigation – Abstraction of a research paper – Drawing inferences from data - Qualitative and Quantitative analysis
2. Internet and its applications:– e-journals- Assessing the status of the problem–Results and Conclusions – Presenting a Scientific seminar – Publication of Research paper - Art of writing a Thesis
3. Literature survey including patents - chemical nomenclature and literature primary sources-secondary sources including reviews. Treatise and monographs, literature searching, Review of work relevant to the selected problems.
4. Thesis / paper writing: - General formation - page and chapter formation. The use of quotation - footnotes - tables and figures - referencing - appendixes - revising the paper or thesis - editing and evaluating and the final product - proof reading - the final types copy.

Suggested Readings:

1. Research Methodology, methods and techniques by C.R. Kothari ,New Age International (2012).
2. Computer Oriented Numerical Methods – V. Rajaraman, Prentice Hall of India (2008).
3. Numerical Methods for Scientific and Engineering Computation by M. K. Jain, S. R. K. Iyengar and R.K. Jain, New Age International (2007).
4. Research Methodology by D. K. Bhattacharya, Excel Books India (2009).