Course Work
M.Phil & Ph. D. (Mathematics)
With effect from July-2018
Course Work  
(Mathematics)  
Credits: 08

❖ **Unit: 1: Research Methodology**
  - Fundamental Principles of counting
  - Fundamentals of logic
  - Set theory
  - Properties of integers
  - Mathematical induction
  - Basic concepts of graph theory / algebra.

❖ **Unit: 2: Computer applications**
  - Introduction to MS Office (MS Word, MS Excel, MS Power Point)
  - Introduction to Latex
  - Document class, fonts and styles in Latex
  - Document structure

❖ **Unit: 3: Review of literature**
  
  Student has to review
  - Titles of related research field
  - Journals
  - Web resources

❖ **Unit: 4: Review of a research paper**
  - Student will prepare a brief review on a research paper

**References:**

- J. Clark and D. A. Holton, First Look at Graph Theory, Allied Publishers Limited.
- J. Gross and J. Yellen, Graph Theory and its Application, CRC press.
- F. Harary, Graph Theory, Addison-Wesley, Massachusetts.
- D. B. West, Introduction to Graph Theory, Prentice-Hall of India Pvt. Ltd.
- G. Gratzer, Math into Latex, An introduction to LATEX and AMS-LATEX, BIRKHAUSER.