

Gujarat Technological University

Master of Pharmacy

Semester – II

Research Methodology

(Common to all discipline)

Theory

(Four hours per week, 6 credits)

- 1 Research-Meaning, purpose, Types, (Educational, Clinical, Experimental, historical descriptive, Basic applied and Patent oriented Research) objective of research
- 2 Literature survey-Use of Library, books and journals-Medlines-Internet, Patent Search, and reprints of articles as a source for Literature survey.
- 3 Selecting a problem and preparing Research proposals
- 4 Methods and tools use in research –
 - A. Qualities studies, quantitative studies
 - B. Simple data organization descriptive data analysis,
 - C. Limitation & sources of Error
 - D. Inquiries in form of Questionnaire, etc.
- 5 Documentation-
 - “How” of documentation
 - Techniques of documentation
 - Importance of documentation
 - Use of computer packages in documentation.
- 6 The Research Report Paper writing/ thesis writing
 - Different parts of the Research paper
 1. Title –Title of project with authors name
 2. Abstract- Statement of the problem, Background list in brief and purpose and scope.
 3. Key Words.
 4. Methodology-subject, apparatus, instrumentation & procedure.
 5. Results- tables, graphs, figures & statistical presentation
 6. Discussion support or non support of hypothesis, practical & theoretical Implications
 7. Conclusion
 8. Acknowledgements.
 9. References
 10. Errata
 11. Importance of Spell check for entire project
 12. Uses of footnotes
- 7 **Presentation** (especially for oral presentation)
 - Importance, types different skills, contained, format of model, introduction, Poster, Gestures, eye contact, facial, expressions, stage, fright, volume- pitch, speed, pause & language, Visual aids & seating, Questionnaire

- 8 Cost analysis of the project – cost incurred on raw materials- Procedure, instrumentations and clinical trials.
- 9 Sources for procurement research grants – international agencies, Government and private bodies.
- 10 Industrial-institution interaction- Industrial projects, their, feasibility reports. Interaction with industries .

References Books:

1. Research In Education- John V. Best, John V. Kahn 7th edition
2. Presentation skills - Michael Hallon- Indian Society for Institute education
2. Practical Introduction o copyright.- Gavin Mcfarlane
3. Thesis projects in Science & Engineering – Richard M. Davis.
4. Scientist in legal Systems- Ann labor science
5. Thesis & Assignment – Jonathan Anderson
6. Writing a technical paper- Donald Menzel
7. Effective Business Report Writing –Leland Brown
8. Protection of industrial Property rights- P. Das & Gokul Das
9. Spelling for the millions- Edna Furrness
10. Preparation for publication – King Edward Hospital Fund for London
11. Information Technology – The Hindu speaks
12. Documentation – Genesis & Development 3792.
13. Manual for evaluation of industrial projects-United Nations
14. Manual for the preparation of industrial feasibility studies