

| Name of Faculty | : | Faculty of Engineering & Technology |
|----------------------|---|-------------------------------------------------|
| Name of Program | : | Master of Technology (M.Tech.) – Cyber Security |
| Course Code | : | 2MCS03 |
| Course Title | : | Research Methodology |
| Type of Course | : | Value Added (VA) |
| Year of Introduction | : | 2023-24 |

| Prerequisite | | Basic familiarity with research concepts and academic writing. | | | | |
|------------------|-----|---------------------------------------------------------------------------|--|--|--|--|
| Course Objective | | This course is designed to enable students to can in detail the | | | | |
| course objective | • | | | | | |
| | | mechanics and stylistics of different kinds of research writings. it will | | | | |
| | | encourage students to analyse linguistic/generic aspects of research | | | | |
| | | papers and enrich the students with essentials of academic research | | | | |
| | | in humanities and social sciences. it will | | | | |
| | | enable them to write research articles, projects and dissertations and | | | | |
| | | equip them with the abilities to read, interpret and write in new areas | | | | |
| | | of research. | | | | |
| Course Outcomes | : | At the end of this course, students will be able to: | | | | |
| | CO1 | To familiarize students with the basic concepts of research before | | | | |
| | | heading towards higher dimensions of research. | | | | |
| | CO2 | To enable students to understand various paradigms of research, its | | | | |
| | | tools, ethics and challenges related to the fields in humanities and | | | | |
| | | social sciences and develop creative and academic skills in them. | | | | |
| | CO3 | To encourage students to adopt interdisciplinary approaches in their | | | | |
| | | research endeavors. | | | | |
| | CO4 | To enable students to cultivate research ethics and academic integrity. | | | | |
| | CO5 | To enable students to formulate their own research questions and | | | | |
| | | write research papers. | | | | |

Teaching and Examination Scheme

| Teachir | Teaching Scheme (Contact Credits | | | Examination Marks | | | | |
|---------|----------------------------------|---|---|------------------------------|-----|-------|-----|-------|
| | Hours) | | | Theory Marks Practical Marks | | Total | | |
| L | Т | Р | С | SEE | CIA | SEE | CIA | Marks |
| 3 | 0 | 0 | 3 | 70 | 30 | 00 | 00 | 100 |

Legends: L-Lecture; T-Tutorial/Teacher Guided Theory Practice; P – Practical, C – Credit, SEE – Semester End Examination, CIA - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.))



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Course Content

| Unit No. | Topics | Teaching Hours | Weightage | Mapping with CO |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|--------------------|
| | Introduction Meaning of research — Function of research — Characteristics of research Steps involved in research — Research in social sciences and humanities — | | | |
| 1 | Research as Exposition and Communication, Materials and Tools of Research, Books, Journals, Research Papers, National/international Conferences, Field Studies, Web Sources. | 12 | 20% | CO1 |
| | Factors which hinder research — significance of research — research process — criteria of good research — problems encountered by researchers — Literature review. | | | |
| 2 | Introduction to research methodology (Research, Hypothesis. Analysis of data and interpretation) Research question Review of literature Data collection- Primary and Secondary Sources Conducting Research: Research Task, Selection of Research | 12 | 20% | CO1 CO2 |
| | Topic, Taking Notes, Methods and Types of note- taking. | | | |
| 3 | Components and Requirements Research Proposal/ Synopsis Research Paper Thesis/Dissertation Research tools MLA Style Sheet (Latest Edition) Chicago Manual of Style (I .atest Edition) | 12 | 20% | CO3 |
| 4 | Research Ethics: Definition and Forms of Plagiarism, Academic Integrity. Social Responsibility. Copyright infringement; Mechanics of Writing Research. | 12 | 20% | CO2 CO4 |
| 5 | Workshop and Presentation I Workshop and Presentation 2 *The students will be divided into smaller groups for presentations | 12 | 20% | CO4 CO5 |



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| Suggested Distribution of Theory Marks Using Bloom's Taxonomy | | | | | | |
|---------------------------------------------------------------|-------------|---------------|-------------|---------|----------|--------|
| Level | Remembrance | Understanding | Application | Analyse | Evaluate | Create |
| Weightage | 20 | 30 | 30 | 20 | 0 | 0 |

NOTE: This specification table shall be treated as a general guideline for the students and the teachers. Theactual distribution of marks in the question paper may vary slightly from above table.

Reference Books

| Sr. No. | Name of Reference Books |
|---------|-----------------------------------------------------------------------------------------------------------------------------|
| 1 | Abdul Rahim, F. Thesis Writing: A Mamula for Researchers. New Delhi: New Age International, 2005. |
| 2 | Adam Srijon. Research Methodology: Methods & Techniques. Delhi: New Age Internationals, 2004. |
| 3 | Ahuja, Ram. Research Methods. Rawat Publications, 2001 |
| 4 | Altick, R. D. The Art of Literary Research. New York: Norton, 1963. and American Literature. New York: MLA of America, 2000 |