Subject Code: 02BT0551
Subject Name: Research Project
M.Sc. Semester- IV

OBJECTIVE: The objectives of this course are to prepare the students to adapt to the research environment and understand how projects are executed in a research laboratory. It will also enable students to learn practical aspects of research and train students in the art of analysis and thesis writing.

Credits Earned: 22 Credits

Course Outcomes: After completion of this course, students will develop:

1. Capability to critically and systematically integrate knowledge to identify issues that must be addressed within the framework of the specific thesis.
2. Ability to perform analytical techniques/experimental methods and to conduct research independently.
3. Project management and report writing skills.
4. Communication and interpersonal skills.

Pre-Requisite of Course: Cumulative experimental and theoretical knowledge of previous semesters.

Teaching Scheme:

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	IA (M)	CSE (I)	Viva (V)	Practicals/ TW	
0	0	40	20	0	0	0	200	400	600

Guidelines for the Research Project:

Sr. No.	Description	Contact Hours
1	**Selection of Research Topic** Students should first select a topic wherein they would like to pursue their dissertation. The supervisor should be able to help the students to read papers in the areas of interest of their expertise and help them to select a topic for their project. The topic of the research should be hypothesis driven. Students should engage in systematic and critical review of appropriate and relevant information sources and appropriately apply qualitative and/or quantitative evaluation processes to original data; keeping in mind ethical standards of conduct in the collection and evaluation of data and other resources.	420
2	**Planning and Conducting the Research** Based on the research topic and literature review, students should be able to plan, and engage in, an independent and sustained critical investigation and evaluate a chosen research topic relevant to biological sciences and society. They should be able to systematically identify relevant theory and concepts, relate these to appropriate methodologies and evidence, apply appropriate techniques and draw appropriate conclusions. Students should also be able to understand the possible outcomes of each experiment.	
3	**Thesis Writing and Presentation** At the end of their project, thesis has to be written giving all the details such as aim, methodology, results, discussion and future work related to their project as per the guidelines of Marwadi University. Students may aim to get their research findings published in a peer-reviewed journal. If the research findings have application-oriented outcomes, the students may file patent application. Students will have to present their research work upon completion of dissertation. They should be able to explain the novelty and importance of their findings.	
	Total Hours	420