INSTITUTE	**FACULTY OF SCIENCE**
PROGRAM	**MASTER OF SCIENCE (CHEMISTRY)**
SEMESTER	**4**
COURSE TITLE	**DISSERTATION/PROJECT**
COURSE CODE	**02CY1554**
COURSE CREDITS	**18**

Objective:

1 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.

2 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

3 It will also enable students to learn practical aspects of research and train students in the art of analysis and thesis writing

Course Outcomes: After completion of this course, student will be able to:

1 Students will be able to learn how to select and defend a topic of their research, how to effectively plan, execute, evaluate and discuss their experiments.

2 Students should be able to demonstrate considerable improvement in thesis writing.

3 Students will be able to conduct research independently.

4 Students will be competent in research design and planning.

Pre-requisite of course: To have practical aspect on theoritical knowledge and increase practical skills in the lab

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	0	36	0	0	0	120	280

Contents : Unit	Topics	Contact Hours
Total Hours		

DR. VICKY DEVENDRA JAIN
Digitally signed by (Name of HOD)

DR. KANTHA DEVI ARUNACHALAM
Digitally signed by (Name of Dean/ Principal)

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**Dissertation/Project** Literature, Experimental, Analysis data, Conclusion	
Total Hours		

Textbook :

1 Introducing research methodology: A beginner's guide to doing a research project, Flick, Sage, 2015

References:

1 Research methodology, Research methodology, PANNEERSELVAM, PHI Learning Pvt. Ltd, 2014

2 Research methodology: Methods and techniques, Research methodology: Methods and techniques, Kothari, C. R., New Age International, 2004

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
10.00	20.00	25.00	25.00	10.00	10.00

Instructional Method:

1 The course delivery method will depend upon the requirement of content and need of students.

2 The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

3 Viva-voce examination will be conducted at the end of semester for evaluation of performance of students.

4 Students will use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Lab.

Supplementary Resources:

1 https://www.youtube.com/watch?v=ur-pIS0CxOg&list=PLsh2FvSr3n7eJR5_YtdRvwoYv4JZ00hqe

2 https://www.youtube.com/watch?v=1vf8ZvADxfY&list=PLLhSIFfDZcUWRlgiXMkd1rNeLSz1You4O

DR. VICKY DEVENDRA JAIN
Digitally signed by (Name of HOD)

DR. KANTHA DEVI ARUNACHALAM
Digitally signed by (Name of Dean/ Principal)