RP641RP: Research Project		
Teaching Scheme: NA **Theory Session**: NA	**Credit: 06**	**Examination Scheme:** **Internal (RP)**: 100 Marks **External (TH)**: 0 Marks **Total :** 100 Marks

Prerequisites:

Understanding of Research Methodology, Writing and drafting reports in MS-WORD/ LaTeX

Course Objectives:

• To Gain a comprehensive understanding of research, its process, and different types.

• To develop the ability to identify and define research problems effectively.

• To Explore various research strategies and apply appropriate methodologies to solve Research problems.

Course Outcomes: On completion of the course, learners should be able to

CO#	Cognitive Domain	Course Outcomes
CO1	Understand	Demonstrate a clear understanding of research concepts, processes, and methodologies, including literature review and research proposal development.
CO2	Analyze	Compare and contrast quantitative and qualitative research approaches, identify a research interest area, and apply suitable research design.
CO3	Analyze	Develop strong academic writing and presentation skills for effectively communicating research findings

Guidelines:

• The project can be undertaken individually or in groups (maximum 4 students) based on the scope and complexity of the research.

• The group should have maximum 4 students depending on level or size of the research project.

• The project should be working research which falls under one or more of the following research categories: Fundamental, Applied, Exploratory, Descriptive, Qualitative, Quantitative, Empirical, Theoretical, Survey-based, or Design & Creation.

• Data collection can be primary and/or secondary, with sources including Kaggle, GitHub, Google Dataset Search, IEEE DataPort, and government data repositories etc. Data should be latest and updated, preferably post-2020.

• Students/groups must present or publish their research in reputed journals or conferences indexed in Scopus, Web of Science, Google Scholar, or other recognized platforms, such as National/International Conferences, Proceedings, Double-Blind Reviewed Journals, ISSN/ISBN-numbered publications, etc.

• The literature survey must include references from at least 25 research publications from reputed sources.

- For final evaluation, students/groups must submit a detailed research report similar to a thesis, including:

  o Introduction to the Proposal
  o Theoretical Background
  o Literature Survey
  o Proposed Work
  o Results & Analysis
  o Discussion & Comparison with Previous Work
  o References

- The submitted research project documentation/report should follow the UGC/AICTE rules and regulations about the plagiarism.
- The plagiarism check should follow UGC/AICTE guidelines, and should be conducted using platforms like Turnitin, Drillbit, or similar software. The plagiarism limit is ≤10% for text-based research and ≤15% for coding-based research.
- The research project report format should follow these guidelines:

  o **Font**: Times New Roman
  o **Font Size**: 12 pt (body text), **14 pt (titles & headings)**
  o **Spacing**: 1.5-line spacing
  o **Justified text alignment**
  o **Figure/Table names** should be in *Italics*
- References & Citations must follow APA style.

SPPU-affiliated institutes/colleges are encouraged to organize research conferences on a rotational basis to accommodate student presentations and discussions.

Evaluation Parameters:

- Originality of Proposed Work   – 10%
- literature survey   – 10%
- proposed work   – 10%
- results obtained   – 10%
- detailed report   – 30%
- work presented/published by student/group of students – 20%
- final presentation.   – 10%

Important Links:

For plagiarism check –

https://www.turnitin.com/login_page.asp?lang=en_us

https://www.drillbitplagiarism.com/

Tools:

- For coding - SPSS, R, Python, MATLAB,
  SAS For report writing - LaTex, MS-Word
- For Citation Management -

Zotero/Mendeley
● Coding - Jupyter Notebook or similar IDEs

Reference Books:
1. **Research Methodology: A Handbook of Methods and Techniques** by S. R. K. Sharma (2011), Sage Publications India.

2. **Research Methodology in Social Sciences** by K. R. Sharma (2013), Ramesh Book Depot.

3. **Statistical Methods for Research** by S. P. Gupta (2017), Sultan Chand & Sons.

4. **Research Methodology: An Introduction** by R. P. Srivastava (2012), Kitab Mahal.

5. **Fundamentals of Research Methodology in Social Sciences** by K. L. Sharma (2015), Atlantic Publishers.

6. **Practical Research: Planning and Design** by P. D. Leedy & J. E. Ormrod (2019), Pearson Education.

7. **The SAGE Handbook of Qualitative Research** by N. K. Denzin & Y. S. Lincoln (2017), SAGE Publications.

8. **Research Methods in Education** by L. Cohen, L. Manion, & K. Morrison (2018), Routledge.

9. **Methods in Social Research** by W. J. Goode & P. K. Hatt (1952), McGraw-Hill.
   Action Research: A Guide for the Teacher Researcher by G. E. Mills (2017), Pearson Education.

<College Letter head>

Date:

<u>CERTIFICATE</u>

This is to certify that Mr/Ms. _____, has successfully / Partially completely his research project work entitled "_____" in partial fulfilment of MCA – II SEM –III RP31 Research Project for the year 2024-2025. He/She has worked under our guidance and direction.

<Project Guide Name>   **<Director/HoD Name>**

Project Guide   **Director/HoD,**

Date:

Place:

A

RESEARCH PROJECT REPORT

ON

<TITLE OF RESEARCH PROJECT>

IN PARTIAL FULFILLMENT OF

MASTER OF COMPUTER APPLICATION

BY

<NAME OF STUDENT(S)>

MCA –II SEM – III (2024-2025)

UNDER THE GUIDANCE OF

<FACULTY NAME>

SUBMITTED TO

SAVITRIBAI PHULE PUNE UNIVERSITY

<NAME OF THE COLLEGE>

Cover Page

Completion certificate of Institute (separate for each student)

Presenters Certificate (separate for each student)

Publishers Certificate (separate for each student)

Self-declaration (Combined for group)

Originality Report/Plagiarism Report

Acknowledgement

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2	Review of Literature	
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