



**Royal College of Arts, Science and Commerce  
(Autonomous)**

*Affiliated to University of Mumbai*

**Program: M. Com( Advanced Accountancy)  
Syllabus for Semester: III**

Syllabus for Postgraduate Programme as per  
National Education Policy (NEP-2020) with effect from the academic  
year 2025-2026

### Programme Outcomes (POs) for M.Com

Sr. No.	On completing M.Com., the student will be able to:
PO1	Acquire knowledge and skills to face the challenges of 21 <sup>st</sup> Century.
PO2	Develop competency for making effective decisions
PO3	Develop advanced theoretical knowledge and research capabilities in the preparation for academic and research focused careers.
PO4	Demonstrate professionalism, morals, teamwork, and strong leadership while embracing the challenges of academia and the industry
PO5	Acquire a solid foundation in accounting and commerce principles, allowing the student to pursue advanced coursework such as CMA, MBA, ICWA, ACCA, and CA.

### Programme Specific Outcomes (PSOs) for M.COM (Advanced Accountancy)

Sr. No.	On completing M.COM (Advanced Accountancy ), the student will be able to:
PSO1	Analyze accounting and financial records
PSO2	Evaluate important aspects based on accounting and costing in the field of accounting and finance in domestic and international market.
PSO3	Understand the basic concepts used in Financial Reporting Standards, various Accounting Standards involved in business transactions
PSO4	Apply cost accounting techniques for budgeting, decision-making, and performance evaluation in business organizations
PSO5	Understand and apply principles of direct and indirect taxation, including GST, income tax, and corporate tax planning, ensuring legal compliance

## MCOM (ADVANCED ACCOUNTANCY)

### SEMESTER-III

<b>1. Course/PaperTitle</b>	<b>Operation Research</b>
Courseofferedas	Major
Course Code	
Semester	3
No.of Credits	4
No.of lectureHours/week	2

SrNo.	Course learning Objectives
CLO1	To enhance the abilities of the learners to develop the concept of Break-even Analysis and its significance in the business with respect to managerial decision making.
CLO2	To enable the learners to calculate the various variances and to apply the same in decision making.
CLO3	To enable the learners in preparing and presenting the financial report in the business corporate in form of various budgets.
CLO4	To make learners able to draft Operating Cost statements of Transport, Hotel, Hospitals etc.

#### Course Outcomes:

Sr. No.	Particulars
CO1	To explain and apply statistical tests under various scenarios. making.
CO2	To apply and interpret sequencing problems and solutions.
CO3	To analyze real-world replacement problems and recommend cost-effective solutions.
CO4	To use decision criteria and tools and decision trees to make optimal decisions based on available information. .

Module	Title with content
<b>I (1 CREDITS )</b>	<b>Unit1:</b> Definition and scope of operation research, Multidisciplinary nature of operation research , Distinction between operation research and operations management Applications of operation research in various fields : Manufacturing(production planning, inventory control, quality management), Logistics and transportation (vehicle routing, network design, scheduling), Finance and economics (portfolio optimization, risk management, decision analysis), Healthcare (resource allocation, facility location, patient

	scheduling) and Energy and environment (energy planning, emissions control, waste management)
<b>I</b> <b>(1</b> <b>CREDITS</b> <b>)</b>	<b>Unit 2: Job Sequencing</b> A) Introduction, Definition, Assumptions and Applicability of Job Sequencing B) Types and Solution of Sequencing Problems: a) 'n' jobs are to be processed on two machines say machine A and machine B in the order AB. This means that the job is to be processed first on machine A and then on machine B. (b) 'n' jobs are to be processed on three machines A,B and C in the order ABC i.e. first on machine A, second on machine B and third on machine C. (c) 'n' jobs are to be processed on 'm' machines in the given order.(d) Two jobs are to be processed on 'm' machines in the given order. ( Practical Illustrations)
<b>II</b> <b>(1</b> <b>CREDITS</b> <b>)</b>	<b>Unit 3: Replacement Model</b> A) Introduction, Types of Failure: Gradual failure and (ii) Sudden failure, Bathtub Curve, Cost associated with Maintenance and Types of Replacement problems: Human Resource, Machines and Building. B) Approaches to Replacement Model: Actual Cost of item, Direct costs of labour involved in replacement. Practical problems: (a) Replacement of Items whose Maintenance Cost Increases with Time and the Value of Money Remains Same During the Period (b) Replacement of Items whose Maintenance Costs Increases with Time and Value of Money also Changes with Time (c) Replacement of Items whose Maintenance Cost Increases with Time and Money Value also Changes and Group Replacement of Items.
<b>II</b> <b>(1</b> <b>CREDITS</b> <b>)</b>	<b>Unit 4: Decision Theory</b> A) Introduction, What is Decision, Decision and Conflict, Classification of decision, Steps in Decision Theory Approach. B) Practical Illustrations on: Decision making under Certainty, Decision making under Risk, Decision making under Uncertainty, Criterion of Optimism, Criterion of Pessimism, Criterion of Regret, Equal Probability Criterion, Decision under conflict and competition, Hurwicz Criterion and Decision Tree (Stochastic Decision Tree).

#### Reference Books

- 1 Introduction to Operations Research by Frederick S. Hiller and Gerald J. Lieberman (10th Edition)
2. Operations Research: Applications and Algorithms by Wayne L. Winston (4th Edition)
3. Queuing Theory by J. Richard Jackson ■ Introduction to Stochastic Programming by John R. Birge and Francois Louveaux.
4. Operations Research: P. Rama Murthy

2. Course offered as	<b>Financial Services (Goods and Services Tax)</b>
Course Code	
<b>Semester</b>	<b>III</b>
No. of Credits	04
No. of lecture Hours/week	02

Sr No.	Course Objectives:
1	To explain the concepts of leasing for purchase option from lessor and lessee's perspective
2	To summarize the concept of factoring and its forms as recourse and non-recourse
3	To give knowledge about various investment funds available in market for return
4	To explain various portfolio management services and measurement of risk and return

### Course Outcome

	On completing the course, the student will be able to:
CO1	The learners will be able to critically evaluate and interpret financial attributes of leasing
CO2	The learners will be able to understand and calculate the effective cost of factoring
CO3	The learners will be able to calculate differentiate and evaluate various alternate investments funds
CO4	The learners will be able to compare and choose various investment avenues considering its risk-return

Module	Title with content
<b>I (1 CREDITS)</b>	<ul style="list-style-type: none"> <li><b>Unit 1: Financial Services: Leasing</b></li> </ul> <p>A) Introduction to Financial Services: Meaning and Types Leasing : Meaning, Types, Advantages and Disadvantages. Regulatory Aspects of Leasing. Evaluation of Lease: From lessee's and lessor's perspective. B) Lessee's Perspective: Present Value Analysis, Internal Rate of Return analysis, and Bower- Herringer Williamson Method. Lessor's perspective: : Net Present Value and Internal Rate of Return Method. Calculation of Break Even Lease Rental.</p>
<b>I (1 CREDITS)</b>	<ul style="list-style-type: none"> <li><b>Unit 2: Financial Services: Factoring</b></li> </ul> <p>A) Introduction, Definition and Mechanism and Growth of factoring. Regulatory Aspects of Factoring. Functions of factor.B) Forms of Factoring: Recourse and Non – Recourse, Advanced nd Post facto, Full, Disclosed and Undisclosed, Domestic and Cross Border. Forfaiting: Meaning, Process and Difference between forfaiting and export factoring. Calculation of net cost of factoring.</p>
<b>II (1 CREDITS)</b>	<ul style="list-style-type: none"> <li><b>Unit 3: Alternative Investment Funds</b></li> </ul> <p>A) Introduction, Evolution, Avenues, Distinguish between Traditional and Alternative Investment Funds and Difference between Alpha and Beta. Types: Venture Capital Fund, Angel Fund, Private Equity Fund, Special Fund,Debt Fund, Infrastructure Fund, SME Fund, Hedge Fund and Social Venture Fund. (Theoretical aspects only)B) Calculation of Returns:</p>

	Yield to Maturity, Multiple on Invested Capital, The Kaplan-Schoar Public Market Equivalent (KS-PME) and Direct Alpha Method.
<b>II (1 CREDITS)</b>	<ul style="list-style-type: none"> <li>● <b>Unit 4: Portfolio Management Services</b></li> </ul> A) Portfolio Management Services: Meaning, Advantages, Types, Strategies: Active and Passive Strategies. Portfolio Analysis: Traditional Vs Modern - Rationale of Diversification -Markowitz Theory - Effect of Combining two securities. B) Measurement of Expected Return of Portfolio - Portfolio Risk (including Practical Problems).

**References:**

- Reilly: Investment Analysis and Portfolio Management, Thomson
- Fisher Donald E & Ronald J Jordan: Securities Analysis & Portfolio Management, PHI
- Francaia Jack Clark & Richard W Taylor: Theory & Problems of Investment, Mcgr
- Punithavathi Pundyan: Securities Analysis & Portfolio Management, Vikas
- Avadhani, V.A: Investment & Security Management in India, Himalaya Gangadhar V: Investment Management, Anmole
- Sulochana M: Investment Management, Kalyani
- Strong: Practical Investment Management, Thomson
- Avadhani, V.A: International finance, Himalaya

**Royal College of Arts, Science and Commerce**

**(Autonomous)**

I	<b>Internal Assessment</b>	
a	One class test (2 Questions out of 3 Questions – 10 Marks Each)	20 Marks
b	Group Discussion	10 Marks
c	Assignment and Active Participation	20 Marks
	Total	<b>50 marks</b>
II	<b>Semester End Examination</b>	<b>50 Marks</b>
	Duration	2 Hours

**External Question Paper Pattern – 50 Marks**

Q. 1 Attempt any 1 out of 2 (14 Marks)

(Note: 14 marks question can be break up into 7 and 7 marks)

Q. 2 Attempt any 1 out of 2 (12 Marks)

Q. 3 Attempt any 1 out of 2 (12 Marks)

Q. 4 Attempt any 1 out of 2 (12 Marks)

(Note: 12 marks question can be break up into 6 and 6 marks)

<b>3. Course/ Paper Title</b>	<b>CORPORATE FINANCIAL ACCOUNTING</b>
Course offered as	Major
Course Code	
Semester	III
No. of Credits	4
No. of lecture Hours/week	2

Sr No.	Course learning Objectives
	To enhance the abilities of learners to:
1	Comprehend and apply Indian Accounting Standards.
2	Evaluate Human Resource Accounting models.
3	Synthesize methods for the valuation of goodwill and shares.
4	Enhancing their analytical and practical skills in financial reporting and valuation

**Course Outcomes:**

Sr. No.	On completion of course learners will be able to:
CO1	<b>Identify and apply various Ind-AS in the financial reporting systems.</b>
CO2	<b>Prepare and analyze statement showing the total value of human capital.</b>
CO3	<b>Prepare and analyze statement illustrating valuation of goodwill and shares under various situations of business</b>

**Detailed Syllabus**

Module	Title with content
<b>I</b> <b>(1 CREDITS)</b>	<p style="text-align: center;"><b>Unit 1: Indian Accounting Standards</b></p> <p>A) Introduction, Indian scenario prior to introduction of Ind AS in India Limitations of Accounting Standard, Emergence of Global Standards, Need and Benefit for Global Standards in India. Convergence v/s Adoption of IFRS, Ind AS Statutory provisions and applicability to various entities.</p> <p>B) Specific Ind-AS: (Theoretical and Small case studies/ practical illustrations for its applicability), Ind-AS19: Employee benefits, Ind-AS 32: Financial Instrument Presentation, Ind-AS 33: Earning Per Share, Ind-AS 38: Intangible Assets, Ind-AS109: Financial Instruments, Ind-AS 113: Fair Value Measurement.</p>
<b>II</b> <b>(1 CREDITS)</b>	<p style="text-align: center;"><b>Unit 2: Human Resource Accounting</b></p> <p>A) Meaning of Human Resource Accounting. Necessity and Implications of Human Resource Accounting. Models of HRA: Cost based Models and Economic Value Models (TheoreticalAspects only)</p> <p>Practical Valuation of Human resources using Lev and Schwartz Model 1971. Preparation of Statement showing the Total Value of Human Capital underLev and Schwartz Model 1971</p>
<b>III</b> <b>(1 CREDITS)</b>	<p style="text-align: center;"><b>Unit 3: Valuation of Goodwill</b></p> <p>A) Meaning, Nature, Characteristics, Types and Factors affecting Goodwill.</p> <p>Methods of Valuation of Goodwill: Average profit method, Super Profit Method, Capitalization Method. (Theoretical and Advanced Practical Aspects</p>
<b>IV</b> <b>(1 CREDITS)</b>	<p style="text-align: center;"><b>Unit 4: Valuation of Shares</b></p> <p>A) Purpose of Share Valuation, Factors Affecting Valuation of Shares</p> <p style="text-align: center;"><b>Approaches to Share Valuation: Income Approach, Net Assets Approach andMarket approach.</b></p> <p>B) Income Approach: Discounted Cash Flow, Dividend Discount Model and Maintainable Profit Basis (Theoretical and Practical) Net Assets Approach and Asset Backing Approach (Theoretical and Practical) Market approach (Theoretical and Practical) Preparation of Statement showing valuation of shares.</p>

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(Two units for a two credit course and four units for a four credit course. 1 credit = 1 lecture hour/week, 2 hours= 1 practical)

### Reference Books

- Introduction to Accountancy by T. S. Grewal, S. Chand and Company (P) Ltd., New Delhi
- Advanced Accountancy by R. L Gupta and M Radhaswamy, S. Chand and Company (P) Ltd., New Delhi
- Modern Accountancy by Mukherjee and Hanif, Tata Mc. Grow Hill & Co. Ltd., Mumbai
- Financial Accounting by Lesile Chandwichk, Pentice Hall of India Adin Bakley (P) Ltd.
- Financial Accounting for Management by Dr. Dinesh Harsalekar, Multi- Tech.Publishing Co. Ltd., Mumbai.
- Financial Accounting by P. C. Tulsian, Pearson Publications, New Delhi Accounting Principles by Anthony, R.N. and Reece J.S., Richard Irwin Inc.
- Financial Accounting by Monga, J.R. Ahuja, Girish Ahuja and Shehgal Ashok, Mayur Paper Back
- Compendium of Statement & Standard of Accounting, ICAI.
- Indian Accounting Standards, Ashish Bhattacharya, Tata Mc. Grow Hill & Co.Ltd., Mumbai
- Financial Accounting by Williams , Tata Mc. Grow Hill & Co. Ltd., Mumbai
- Company Accounting Standards by Shrinivasan Anand, Taxman.
- Financial Accounting by V. Rajasekaran, Pearson Publications, New Delhi.
- Introduction to Financial Accounting by Horngren, Pearson Publications.
- Financial Accounting by M. Mukherjee.M. Hanif. Tata McGraw Hill EducationPrivate Ltd; New Delhi

### Royal College of Arts, Science and Commerce

(Autonomous)

I	<b>Internal Assessment</b>	
a	One class test (Short answers/Objectives/ Multiple Choice)	20 Marks
b	Project Presentation, Group Discussion, Online Test	30 Marks
	Total	<b>50 marks</b>
II	<b>Semester End Examination</b>	<b>50 Marks</b>
	Duration	2 Hours

<b>4. Course/ Paper Title</b>	<b>Advanced Auditing</b>
Course offered as	Major
Course Code	
Semester	3
No. of Credits	4
No. of lecture Hours/week	2

Sr No.	Course learning Objectives
1	Learners will be able to apply auditing procedures to a simulated financial statement audit, ensuring compliance with relevant Standards on Auditing.
2	Learners will be able to prepare an audit working papers and conduct variance analysis to a simulated financial statement.
3	Learners will be able to distinguish between different types of audit evidence (physical, documentary, analytical) and explain the procedures used to gather evidence for specific audit objectives, justifying the choice of procedures based on the nature of the assertion being tested.
4	Learners will be able to identify, analyze an audit report and explain the auditor's opinion on the financial statements, including the rationale for any modifications made to the opinion.

#### Course Outcomes:

Sr. No.	On completion of course learners will be able to:
1	To acquaint learners with Standards on Auditing and its application in financial reporting systems.
2	To develop the ability to plan and execute audits.
3	To develop an understanding of the types of audit evidence and how to apply appropriate procedures to gather sufficient and reliable evidence.
4	To develop the ability to critically evaluate and interpret audit reports.

#### Detailed Syllabus

Module	Title with content
<b>I (1 CREDITS)</b>	<p><b>Unit 1: Auditing Principles and Auditor's Responsibilities</b></p> <p>A) Standard on Auditing: Meaning and Introduction. Objectives and Checklist of Auditor in accordance with SA 230. Objectives and Checklist of Auditor in accordance with SA 240. Objectives and Checklist of Auditor in accordance with SA 250.</p> <p>Objectives and Checklist of Auditor in accordance with SA 260. (Use Case Study method and Check list for teaching and evaluation)</p>
<b>II (1 CREDITS)</b>	<p><b>Unit 2: Audit Planning, Strategy and Execution</b></p> <p>A) SA 200 Commencing an Audit: Checklist. Factors influencing Audit Strategy &amp; Plan. Audit Working Papers: Meaning and Relevance.</p> <p>Audit Working Paper on: Planning Scope of Engagement, Initial Audit Check list, Note on understanding client business, key people, Variance Analysis of Balance Sheet and Profit and loss statement. (Note Practical Problems on Variance Analysis are to be included)</p>
<b>III (1 CREDITS)</b>	<p><b>Unit 3: Audit Evidence</b></p> <p>A) SA 500 and 501: Audit Evidence Considerations. SA 505: External Communication. SA 510: Initial Audit Engagement: Checking Opening Balances. B) SA 530: Audit Sampling. SA 550: Related Party Transactions. (Use Case Study method and Check list for teaching and evaluation)</p>
<b>IV (1 CREDITS)</b>	<p><b>Unit 4: Audit Report</b></p> <p>A) Meaning, Elements and Types of Audit Report. SA 700: Forming an Opinion and Reporting on Financial Statements &amp; Checklist. SA 701: Communicating Key Audit Matters in the Independent Auditor's Report. SA 705: Modifications to the Opinion in the Independent Auditor's Report. SA 706: Emphasis of Matter Paragraphs and Other Matter Paragraphs in the Independent Auditor's Report.</p> <p>B) Reading and Interpretation Extracts of Audit Report. (Use Case Study method and Check list for teaching and evaluation)</p>

(Two units for a two credit course and four units for a four credit course. 1 credit = 1 lecture hour/week, 2 hours= 1 practical)

**Reference Books**

- Guidance notes issued by Auditing and Assurance Standards Board and The Institute of Chartered Accountants of India.
- Arens, A. A., & Loebbecke, J. P. (2023). Audit Theory and Practice. Pearson Education Limited.
- Arens, A. A., Elder, R. J., & Beattie, M. S. (2022). Auditing and Assurance Services. McGraw-Hill Education.
- Hodge, T. D., Weiss, E. S., & Arens, G. (2021). Auditing: A Business Risk Approach. John Wiley & Sons.
- Louwers, T. J., Vance, C. J., Ricketts, W. M., & Libby, R. H. (2020). Auditing: An Integrated Approach. McGraw-Hill Education.
- Carmichael, D. R., Green, C. W., & Sethuraman, K. R. (2019). Professional Auditing. CCH Incorporated.

- Desai, M. A., & Sundar, V. (A conceptual framework for auditing theory). Springer.
- Mittal, V. K. (Auditing process and techniques). Taxmann Publications Pvt.Ltd.
- Gupta, R. K. (Auditing). Sultan Chand & Sons.
- Tulsian, P. C. (Auditing). Tulsian Publishers Pvt. Ltd.
- Katzenmeyer, J. L. (The language of audit assertions and evidence). JohnWiley & Sons.

**Royal College of Arts, Science and Commerce**

**(Autonomous)**

I	<b>Internal Assessment</b>	
a	One class test (Short answers/Objectives/ Multiple Choice)	20 Marks
b	Project Presentation, Group Discussion, Online Test	30 Marks
	Total	<b>50 marks</b>
II	<b>Semester End Examination</b>	<b>50 Marks</b>
	Duration	2 Hours

**Internal Assessment:50**

**College Assessment:50**

**External Question Paper Pattern – 50 Marks**

Q. 1 Attempt any 1 out of 2 (14 Marks)

(Note: 14 marks question can be break up into 7 and 7 marks)

Q. 2 Attempt any 1 out of 2 (12 Marks)

(Note: 12 marks question can be break up into 6 and 6 marks)

Q. 3 Attempt any 1 out of 2 (12 Marks)

R. 4 Short note any 2 out of 3(12 Marks)

<b>5. Course/ Paper Title</b>	<b>Advanced Trends in Accounting - III</b>
Course offered as	Major
Course Code	
Semester	1
No. of Credits	2
No. of lecture Hours/week	2

Sr No.	Course learning Objectives
Po	<b>To acquaint learners about various documents required under GST Law.</b>
Po	<b>To acquaint learners about various GST returns and their due dates</b>
Po	To impart knowledge concerning regulatory and GST framework governing E-Invoicing
Po	To Impart E- Way Bill Format and Preparation Procedures. (Theoretical and Practical Aspects)
Po	To impart knowledge on the categories of persons not liable to deduct TDS. Monthly & annual statements by Electronic Commerce Operator.
Po	To impart knowledge on the due Dates for Payment of Tax and Filing of Returns Default/Delay in Furnishing Return (Theoretical Aspects only)

**Course Outcomes:**

Sr. No.	After completing the course the student will be able to:
CO1	The learners will be able to summarize and analyze the GST Law landscape in India..
CO2	Learners will be able to record and reconcile digital transactions, understanding the nuances of GST framework governing E-Invoicing
CO3	Learners will be able to demonstrate the ability to prepare E- Way Bill and the procedure to make the same.
CO4	Learners will be able to recognize different categories of persons liable to deduct TDS.
CO5	Learners will be able to identify different dates for different categories of persons to file GST Returns.

## Detailed Syllabus

Module	Title with content
<b>I (1 CREDITS )</b>	<b>Unit 1:</b> Basic Procedures: GST Registration for various entities. (Theoretical and Practical Aspects) Amendment of Registration. Cancellation of Registration. Revocation of Cancellation of Registration GST Tax Invoices and Debit & Credit Note: Meaning, Conditions, Format and Preparation Procedure. (Theoretical and Practical Aspects) B) Bill of Supply and E-Invoicing: Meaning, Conditions, Format and Preparation Procedures. (Theoretical and Practical Aspects) E- Way Bill: Meaning, Conditions, Format and Preparation Procedures. (Theoretical and Practical Aspects)
<b>I (1 CREDITS )</b>	<b>GST Payment of Tax &amp; Return Filing (Theoretical and Practical Aspects)</b> A) Payment of Tax: Electronic Cash Ledger Electronic Credit Ledger Electronic Liability Register Interest on delayed payment of tax Tax Deduction at Source and Tax Collection at Source Deductors of Tax at Source. Categories of persons not liable to deduct TDS. Monthly & annual statements by Electronic Commerce Operator. B) E-Filing Returns: Furnishing Details of Outward Supplies (GSTR-1) Furnishing Details of Inward Supplies (GSTR-2A & GSTR-2B) Furnishing of Returns Under Section 39 (GSTR-3B), Return For Composition Supplier (GSTR-4), Return for Non-Resident Taxable Person (GSTR-5) Return for TDS (GSTR-7), Statement for TCS (GSTR-8), Annual Return (GSTR-9/9A & GSTR9B) Final Return (GSTR-10), Due Dates for Payment of Tax and Filing of Returns Default/Delay in Furnishing Return (Theoretical Aspects only)

(Two units for a two credits course and four units for a four credits course. 1 credit = 1 lecture hour/week, 2 hours= 1 practical)

### References:

- Comprehensive Guide to Goods and Services Tax (GST) in India by Bangur & Bangur, 2023 Publisher: LexisNexis
- GST Law & Practice by R.K. Jain Taxmann Publications Ltd.2024
- GST Ready Reckoner by Taxmann Editorial Board Taxmann Publications Ltd.2024
- The GST Handbook by PCS Tax Publications 2024
- GST Bare Act.

### Paper Pattern (Total 50 Marks)

**Internal = 25 Marks**

**External = 25 Marks**

**Internal Paper Pattern (25 Marks)**

**Q1. Project Presentation/ Case Study writing 05 Marks**

**Q2. Quiz/ Group discussion 05 Marks**

**Q3. Paper Presentation/ Seminar presentation 05 Marks**

**Q4. Class Test 10 Marks**

**Total 25 Marks**

**External Paper Pattern (25 Marks)**

**Q1. Case Study Analysis 05 Marks**

**Q2. Answer the following (Any One) 10 marks**

A

Or

B

**Q3. Answer the following (Any One) 10 Marks**

A

Or

B

**Total 25 Marks**

<b>6. Course/ Paper Title</b>	<b>Research Projects</b>
Course offered as	Major
Course Code	
Semester	1
No. of Credits	4
No. of lecture Hours/week	2

**Introduction:** The National Education Policy (NEP) 2020 emphasizes the importance of research at the postgraduate level

as a way to enhance the quality of higher education in India. Research projects are vital for advancing knowledge and fostering innovation across various fields. They enhance critical thinking and problem-solving skills, allowing individuals to analyze complex issues and develop effective solutions. Engaging in research cultivates essential skills such as data analysis, scientific writing, and project management, while also providing opportunities for collaboration and networking with peers and experts. Furthermore, research projects address societal challenges by generating evidence-based solutions that inform public policy and improve community well-being. Ultimately, they contribute not only to personal growth employability but also to the collective understanding of pressing issues, making them indispensable in both academic and professional contexts.

### **Course learning Objectives**

Sr No.	Particulars
1	The research project challenges students to think critically, analyze data, and develop well-supported arguments, helping them to refine their problem-solving abilities.
2	By undertaking a comprehensive research project, students gain hands-on experience in research methodologies, data collection, analysis, and interpretation, which are crucial skills for future academic or professional endeavors.
3	The project encourages students to contribute original research that adds to the existing body of knowledge in their field, advancing academic scholarship.
4	Research projects can also focus on addressing pressing societal challenges, thus enabling students to contribute to solving real-world problems and driving social, economic, and technological development.
5	Completing a research project enhances students' ability to work independently, manage time effectively, and communicate complex ideas, preparing them for leadership roles in academia, industry, or public service.
6	The research fosters creativity and innovation by encouraging students to address

	current problems, explore new solutions, and apply their findings in real-world contexts.
7	Postgraduate research projects often involve exploring intersections of various disciplines, promoting interdisciplinary learning and broadening students' intellectual horizons.

#### Course Outcomes:

Sr. No.	Particulars
1	The student is expected to gain expertise in research methodologies, critical thinking, data analysis, and problem-solving, equipping them with skills essential for further academic or professional endeavors .
2	The postgraduate research project fosters self-reliance, perseverance, and the ability to manage complex tasks, helping students develop critical personal attributes like time management, resilience, and intellectual independence.
3	Through the research process, students may collaborate with faculty, industry professionals, or other researchers, broadening their academic and professional network and gaining exposure to interdisciplinary work.
4	The research outcomes can contribute to societal progress by addressing pressing global issues, such as sustainability, health, education, or technology, potentially influencing public policy, industry standards, and community practices.
5	The project often has practical applications in solving real-world problems, influencing policies, technologies, or practices within industries, healthcare, social services, or public administration.
6	The research might lead to published papers, conference presentations, or recognition within academic communities, establishing the student as a contributor to scholarly discourse and increasing visibility in their field.
7	The research contributes new knowledge, insights, or innovations in the chosen field, pushing the boundaries of understanding and addressing current challenges or gaps in the literature.

#### 4. Indicative list of areas for the Research Project:

The areas of research projects can be decided by the head of the institution in consultation with the faculty in respective subjects.

#### 5. Role and responsibilities

The successful execution of a postgraduate research project requires the involvement of various authorities, each playing a distinct role in overseeing, guiding, and supporting the research process. These authorities ensure that the research is conducted with integrity,

follows academic standards, and produces meaningful results.

### **Research Supervisor/Advisor/Guide**

- Providing academic and technical guidance in formulating the research question, methodology, and data analysis.
- Offering feedback on the research progress and draft submissions.
- Ensuring that the student adheres to ethical standards in conducting research.
- Supporting the student in identifying relevant resources, literature, and tools.
- Helping the student develop research skills and fostering independent thought.

### **Institution/University**

- Providing access to libraries, research databases, laboratories, and other essential research facilities.
- Ensuring compliance with academic and ethical guidelines for research.
- Offering training on research methodologies, academic writing, and presentation skills.
- Coordinating the assessment of research through thesis reviews, oral defences, and grading.
- Ensuring adherence to intellectual property policies, ensuring that the research findings are properly protected.

### **Research Committee/Board**

- Reviewing and approving research proposals to ensure they are aligned with academic and ethical standards.
- Ensuring that the research adheres to ethical guidelines, such as those related to human/animal subjects, confidentiality, and data integrity.
- Monitoring ongoing research for compliance with ethical standards and university policies.
- Providing advice on interdisciplinary research approaches and funding opportunities.

### **Ethics Committee/Institutional Review Board (IRB) (if required)**

- Reviewing research proposals to ensure participant safety, confidentiality, and voluntary participation.
- Evaluating potential risks and ensuring that they are minimized.
- Ensuring that informed consent is obtained and that the research complies with all ethical guidelines.
- Monitoring the ethical conduct of the research throughout its duration.

### **External Reviewers/Examiner**

- Assessing the quality, originality, and academic rigor of the research.
- Providing constructive feedback to ensure that the research meets academic standards.
- Offering suggestions for improvement or further research.
- Conducting a fair and impartial evaluation of the thesis or dissertation.

### **Library and Research Support Staff**

- Assisting in finding and accessing academic articles, books, journals, and other resources.
- Providing training on research tools, databases, and citation management software.
- Offering support in data management, archiving, and the dissemination of research outputs.

### **Peer Mentors/Colleagues/fellow students**

- Offering feedback on drafts, presenting ideas, or conducting joint discussions.
- Sharing resources, tools, or research methods.
- Encouraging and providing emotional support throughout the research process.

### **Administration/Registrar Office**

- Keeping track of academic progress and milestones related to the research project.
- Coordinating the submission of thesis/dissertation and scheduling defence dates.

- Managing administrative paperwork related to registration, academic credits, and degree requirements.
- Ensuring compliance with institutional regulations.

### **Process of Research Project Implementation:**

#### **Flow chart**

- Formation of Research Project Committee
- Appointment of Coordinators/guides/mentors
- Research project orientation by the Research Project Committee
- Allotment of students as per guidelines
- Execution of Research Project
- Evaluation
- Student Feedback

### **The mechanism for the implementation of the Research Project:**

The mechanism for implementing a postgraduate research project involves a structured process that ensures the research is conducted systematically, adheres to academic standards, and results in meaningful contributions to the field of study. This process includes stages such as planning, execution, monitoring, and evaluation.

#### **Project Initiation and Proposal Submission**

- The student identifies a relevant research topic in consultation with a supervisor, considering its feasibility, academic significance, and alignment with available resources.
- The student prepares a detailed research proposal, including the research question, objectives, methodology, timeline, and expected outcomes.
- The research proposal is submitted to the research committee or academic board for review and approval. Ethical clearance, if applicable (e.g., for research involving human or animal subjects), is obtained at this stage.
- A faculty member is assigned as the supervisor to guide and monitor the research.

#### **Research Design and Methodology**

- The student, with the guidance of the supervisor, selects appropriate research methods (qualitative, quantitative, or mixed methods) that align with the research question.
- A comprehensive review of existing literature is conducted to identify gaps, theoretical frameworks, and existing research on the topic.
- The research design outlines how data will be collected (e.g., surveys, experiments, archival research, interviews), and ethical guidelines are incorporated.

#### **Data Collection and Analysis**

- The student collects data according to the chosen methodology, ensuring adherence to ethical standards (e.g., informed consent, data confidentiality).
- Data is organized, stored, and backed up to maintain integrity and prevent loss.
- The collected data is analyzed using appropriate statistical or qualitative analysis tools, with the interpretation of results aligning with the research objectives.

#### **Regular Supervision and Progress Monitoring**

- The student meets regularly with the supervisor to discuss progress, challenges, and receive feedback on drafts and findings.
- The student may be required to submit periodic progress reports detailing completed tasks, data analysis, and adjustments to the research plan.
- The supervisor helps the student address challenges such as data issues, methodological concerns, or theoretical gaps.

### **Writing and Documenting the Research**

- The student writes the research thesis or dissertation, structured according to the institution's guidelines (typically including an introduction, literature review, methodology, results, discussion, and conclusion).
- The student submits drafts to the supervisor for review and makes necessary revisions based on feedback.
- The student ensures proper citation of sources using a recognized academic citation style.

### **Ethical Review and Compliance**

- If the research involves human or animal subjects, ethical approval must be obtained from the institution's ethics committee or institutional review board (IRB).
- The student ensures the confidentiality and privacy of participants, and that data is handled with integrity throughout the research process.
- The research is conducted in adherence to the university's policies on academic integrity, plagiarism, and intellectual property.

### **Final Review and Defense**

- Upon completion, the student submits the final version of the thesis or dissertation to the academic department.
- The student may be required to defend the research before a panel of examiners, including the supervisor and external reviewers, to assess the quality and significance of the research.
- The student may be asked to make final revisions based on feedback from the defense panel before submitting the final version.

### **Publication and Dissemination**

- The student may be encouraged to publish research papers based on the thesis in peer-reviewed journals or present findings at academic conferences.
- Depending on the nature of the research, findings may be shared with industry professionals, policy-makers, or the general public through reports, workshops, or community events.

### **Credits and Duration:**

Students are to work on research project individually and should be the continuity of the research project selected in the semester.

For semester III, Research Project is of 4 credits which equals to project working hours of 120.

For semester IV, Research Project is of 6 credits which equals to project working hours of 180.

Students should devote enough time for their project work (08 hours each week). **10 | 20**

Record of attendance and continuous performance of the student is required to be monitored by the mentor.

The research project is to be completed during Semester III & Semester IV independently. According to the guidelines outlined in the National Education Policy (NEP), Post graduate students are expected to fulfill this requirement in the third and fourth semesters of their PG program.

### **Project (Dissertation) Report:**

Students are required to submit a report of the research project at the end of the semester in following suggested format.

A project dissertation should be typed on *A4 sheets, Font Size 12, Times New Roman, one and a half spacing on executive bond paper.*

The project report shall have an appropriate chapter scheme and be presented in a minimum of 30-40 pages. The report should be arranged in the following manner.

#### **Title Page**

- Title of the Report (Font size 14)
- Name of the Student
- Roll number/Seat number
- Project Title
- Name of the Mentor
- Month of Submission

#### **Certificate by the Institute**

#### **Certificate by Mentor**

#### **Student's Declaration**

#### **Acknowledgement**

#### **Abstract**

- A brief summary of the Project, key observations, and main conclusions (200-300 words).

#### **Table of Contents**

- Include headings and subheadings with page numbers.**List of Figures and Tables**
- List all figures and tables included in the report with corresponding page numbers.

#### **Chapter 1: Introduction**

- Purpose of the research project: Outline the objectives and expected outcomes of the project.
- Background Information: Provide context about the project work and its significance.
- Scope of the Report: Define the boundaries of what the report will cover.

#### **Chapter 2: Literature Review**

- Review relevant literature on previous studies, and critical analyses of the literary significance.

#### **Chapter 3: Methodology**

- Describe the approach and methods used for data collection during the work.
- Discuss the rationale behind the chosen methods.

#### **Chapter 4: Research Work Descriptions, Observations, and Analysis**

- Provide detailed descriptions of work carried out.
- Include observations related to the work relevance to the topic selected.

- Use photographs, diagrams, reactions, etc. to support the descriptions.
- Analyze the data collected in relation to the study objectives.

### **Chapter 5: Conclusion and Recommendations**

- Discuss how the findings from the work contribute to the understanding of subject area.
- Summarize the key findings and their significance.
- Offer recommendations based on the research findings for further study or preservation efforts.

### **References**

- List all sources cited in the report in a consistent format.

### **Appendices**

- Include additional data, notes, or documents that are relevant to the report but not integral to its main text.

### **Evaluation Pattern**

Evaluation during the research project involves two key components: External Evaluation (50%) and Internal Evaluation (50%) for both the semesters.

### **Evaluation of Research Project for Semester - III**

#### **Internal Continuous Assessment: 50% (50 Marks)**

#### **Sr. No**

#### **Criteria for evaluation**

#### **Marks**

1. Attendance (DPR\* to be maintained)

10

2.

Literature Survey

3.

Scheme/ Outline of project /

Methodology

15

#### **Total**

**50**

DPR: Daily Progress Report

#### **Semester End External Examination: 50% (50 Marks)**

#### **Sr. No**

#### **Criteria for evaluation**

#### **Marks**

1.

Presentation

15

2.

Dissertation

20

3.

Viva

**Appendix I**

**Main Page Format of Project Report**

**Title of the Project**

**Name of the Student**

**(Name of Academic Course and Academic Year Details)**

**Example: Masters in Chemistry**

**Under the Guidance of**

**Name of Guide**

**Name of the Department/College/Institute**

**Academic Year – 2024-25**

**Appendix II**

**Name of the Department/College/Institute**

**Certificate**

I hereby certify that Mr./Ms. \_\_\_\_\_, Student of \_\_\_\_\_ College/Institute/ Department studying in \_\_\_\_\_, has completed a project titled \_\_\_\_\_ in the area of \_\_\_\_\_ specialization for the academic year 2024-2025. To the best of my knowledge the work of the student is original and the information included in the project is correct.

**Name and Signature of  
Research Project Guide**

**Name and Signature of  
HOD**

**Name and Signature of  
HOD/Principal/Director**

**Appendix III**

**Declaration**

I, Mr./Ms. \_\_\_\_\_ Student of \_\_\_\_\_ College/Institute/ Department studying in \_\_\_\_\_, hereby declare that I have completed the Research project entitled \_\_\_\_\_ during the academic year 2024-2025.

The report work is original and the information/data included in the report is true emerging from the primary and/ secondary data gathered and analyzed as part of this project. Due credit is extended on the work of Literature/Secondary Survey by endorsing it in the Bibliography as per prescribed format.

Signature of the Student with Date  
Name of Student

**Appendix IV**  
**Student Feedback on Research Project**  
**(To be filled by Students after Project completion)**

- Student Name:
- Seat No./Roll No.:
- Email:
- Department:
- Name of the Mentor:
- Title of Research Project:
- Brief description of Project work carried out:
- Year of completion of Research Project:
- Was your project work experience related to your major area of study?
  - Yes, to a large degree
  - Yes, to a slight degree
  - No, not related at all

Indicate the degree to which you agree or disagree with the following statements.

<b>This experience has:</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>No opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
Given me the opportunity to explore a career field					
Allowed me to apply classroom theory to practice					
Helped me develop my decision-making and problem-solving skills					
Expanded my knowledge about the work world before permanent employment					
Helped me develop my written and oral communication skills					
Provided a chance to use leadership skills (influence others, develop ideas with others, stimulate decision-making and action)					
Expanded my sensitivity to the ethical					

implications of the work involved					
Made it possible for me to be more confident in new situations					
Given me a chance to improve my interpersonal skills					
Helped me learn to handle responsibility and use my time wisely					
Helped me discover new aspects of myself that I didn't know existed before					
Helped me develop new interests and abilities					
Helped me clarify my career goals					
Allowed me to acquire information and/or use equipment not available at my Institute					
Allowed me to realize socio-economic/environmental issues.					

- In the Institute Research Project, faculty members are expected to be mentors for students. Do you feel that your faculty mentor served such a function? Why or why not?

- How well were you able to accomplish the initial goals, tasks and new skills that were set down in your learning contract? In what ways were you able to take a new direction or expand beyond your contract? Why were some goals not accomplished adequately?

- In what areas did you most develop and improve?

- What has been the most significant accomplishment or satisfying moment of your Research Project?

- What did you dislike about the Research Project?

- Considering your overall experience, how would you rate this Research Project? (Circle one). –

Satisfactory/ Good/ Excellent

- Give suggestions as to how your research project experience could have been improved. (Could you have handled added responsibility? Would you have liked more discussions with your professor concerning your project work? Was closer supervision needed? Was more of an orientation required?)

Signature of Student

Name

Date: