

RIMT UNIVERSITY
MANDI GOBINDGARH, PUNJAB



RIMT
UNIVERSITY

Study Scheme & Syllabus

For

Ph.D. (2021)

School of Education

RIMT UNIVERSITY
MANDI GOBINDGARH, PUNJAB

VISION

To become one of the most preferred learning places and a centre of excellence to promote and nurture future leaders who would facilitate the desired change in the society.

MISSION

- To impart teaching and learning through cutting-edge technologies supported by the world class infrastructure
- To empower and transform young minds into capable leaders and responsible citizens of India instilled with high ethical and moral values.
- To develop human potential to its fullest extent and make them emerge as world class leaders in their professions and enthuse them towards their social responsibilities.

SCHOOL OF EDUCATION

VISION

- To enable the learners discover their special talent and develop self-confidence for better adjustment
- To aspire teacher trainees to contribute in nation building
- To help them to become ethical, civic minded and committed leaders
- To enable them to become catalysts in the never-ending process of education.

MISSION

To enable teacher trainees to be exemplary teachers, leaders and models for the society who are caring, committed, competent, efficient and resilient teachers. The institution also instills in them confidence and will to serve the cause of teaching and humanity.

ABOUT THE PROGRAM

The program will develop the candidate's independent and reflective knowledge and skills for his/her own research and others as well as the role of research in a broader context. A candidate will achieve the following course outcomes in terms of knowledge, skills, and general competencies, after completing the Ph.D. program.

SCHOOL OF EDUCATION

PROGRAM EDUCATION OBJECTIVES

PEO1	To acquaint students with the concept of research and educational research. To develop an understanding of the nature and scope of educational research.
PEO2	Students will be equipped with skills to undertake research work
PEO3	To develop an understanding of the basic framework of the research process and publications
PEO4	To develop the capacity to serve the various higher academic institutions like Colleges, Universities, and National Research Institutes in various fields of apex academic research

Program Outcomes for Ph.D.

PO 1	Understanding different research methods, Equipping scholars with relevant tools and techniques, Data collection and analysis by using statistical measures, use of conceptual understanding in practical research work, and writing a research report.
PO 2	To identify and critically evaluate research and publication of ethical issues within the area of teacher education
PO 3	Enhance the analytical and interpretation skills of data, Scholars are well trained in using statistical measures, and software- SPSS; MS EXCEL, etc.
PO 4	Use ICT in research perspective, design and develop ICT integrated learning resources, analysis, and interpretation of the research data with the help of ICT.
PO 5	Apply critical, analytical, and communication skills in developing professional presentations and writing.
PO 6	To access and extract the desired information from the different scientific databases and resources
PO 7	Develop the analytical and reflective skills for resolving the critical educational issues
PO 8	Students will be acquainted with the statistical techniques in research

PROGRAM SPECIFIC OUTCOME

PSO 1	To bring together theory and research from education and other related disciplines to facilitate effective teaching and learning.
PSO 2	To develop an understanding and appreciation for the various kinds of research as well as their aspects.
PSO 3	To disseminate educational research at recognized national and international level

Name of School/Department: School of Education

Programme Name: Ph.D. (Doctor of Philosophy) Education

Programme Code: EDU-501

MAPPING OF PROGRAM SPECIFIC OUTCOMES (PSOs) WITH PROGRAM OUTCOMES (POs)

A broad relation between the program-specific outcomes and the program outcomes is given in the following table:

PROGRAM SPECIFIC OUTCOMES (PSOs)	PROGRAM OUTCOMES			
	PO1	PO2	PO3	PO4
PSO 1	-	2	2	2
PSO 2	3	1	-	-
PSO 3	-	1	2	3

Contribution:

- “1” Slight (Low) Correlation
- “2” Moderate (Medium) Correlation
- “3” Substantial (High) Correlation
- “-” Indicates there is no Correlation.

Program: Ph.D. Course Work

Subject: Education

Program Code: EDU-501

Subject Code	Subject Name	(Hours Per Week)				
		L	T	P	S	Credits
RMN 501 1	Research Methodology & Statistical Techniques	5	0	0	-	5
CAR 502M	Computer Applications in Research	3	0	0	-	3
EDU 503 A	Educational Psychology (Core Subject)	5	0	0	-	5
EDU 503 B	Teacher Education					
MRP 504M	Research Project/ Term Paper	2	0	0	-	2
RPE 503 M	Research Publications & Ethics	2	0	0	-	2
		17	0	0	-	17

RIMT UNIVERSITY

Course Name: Research Methodology & Statistical Techniques

Course Code: RMN 501 1

Internal Marks: 40

External Marks: 60

Time: 3 Hours

Course Objectives

- a) To familiarize participants with the basics of research and the research process.
- b) To enable the participants in conducting research work and formulating a research synopsis and report.
- c) To impart knowledge for enabling students to develop data analytics skills and meaningful interpretation of the data sets to solve the business/Research problem.

Unit-I

Introduction to Research Methodology: Meaning, nature, and scope; types of research, and research process. *Problem Definition:* Research problem; the necessity of defining the problem; techniques involved in defining a problem; review of literature and identification of research gaps.

Research Design: Meaning of research design; need for research design; features of a good design; important concepts relating to research design; and different research designs.

Sampling Design: Census and sample survey; steps in sampling design; criteria of selecting a sampling; characteristics of a good sample design; different types of sample designs; and random sampling design.

Unit-II

Measurement and Scaling Techniques: Sources of error in measurement; tests of sound measurement; and important scaling techniques.

Data Collection: Collection of primary data; observation method; interview method; a collection of data through questionnaires; collection of data through schedules; latest advances in methods of data collection; collection of secondary data; the case study method.

Data Analysis-I: *Descriptive Statistics Analysis* covering measures of central tendency, dispersion and asymmetry; measures of relationship using regression, correlation, and association (in case of attributes). *Inference Statistics Analysis* covering sampling theory, concept of standard error, and the problem of estimation of a sample size.

Unit-III

Data Analysis-II: Testing of hypotheses covering basic concepts, procedure for hypothesis testing, tests of hypotheses, tests of significance for large samples and small samples, students t-distribution, properties, and t-distributions and the t-levels applications

of the t-distribution, chi-square test and goodness of fit, F-test and Z test, analysis of variance, non-parametric test, The Mann – Whitney test, Krushal-Wallias test. *Multivariate Regression Analysis*: econometric model formulation, estimation, testing and interpretation.

Unit-IV

Research Tools: *MS-Excel*, covering broad structure, features, data /file handling, formulae /functions and brief review of utilities of the package. *Statistical/Econometric Package* covering structure of package, data and file handling utilities and analysis utilities of the package.

Interpretation and Report Writing: Technique of Interpretation: Different Steps in Writing Report.

Course Outcomes: On completion of this course, the student will be:

CO1	RMN 501 1.1	Develop an understanding about various kinds of research, objectives of doing research, research process, research design, and sampling.
CO2	RMN 501 1.2	Have a basic knowledge of qualitative research techniques.
CO3	RMN 501 1.3	Acquire an adequate knowledge of measurement and scaling techniques as well as the quantitative data analysis.
CO4	RMN 501 1.4	Get a basic awareness of data analysis and hypothesis testing procedures.

Recommended books:

1. Kothari, C.R., *Research Methodology: Methods and Techniques*, New Age International Publishers, New Delhi, 2010.
2. Garrett Henery E., *Statistics in Psychology and Education*, Longmans, Green, And Co., 1958.
3. Fisher, R.A., *Statistical Methods for Research Workers*, Springer-Verlag New York, Inc. 1992.
4. Gupta, S.P, *Statistical Methods*, Sultan Chand & Sons, New Delhi, 2019.
5. Allen, R.G.D., *Statistics for Economists*. London (Hutchinson), 1949.
6. Blair, Morris M. *Elementary Statistics*, Henry Holt and Co., 1944
7. Smith and Smith, *Business and Economic Statistics*, South Western publishing co., 1996.

Ph.D. Course Work
Course Name: Computer Applications in Research
Course Code: CAR 502M

Internal Marks: 40
External Marks: 60
Time: 3 Hours

Course Outcomes: After the completion of course-work, the candidates will able to:

- Present the graphical representations of data
- Make use of applications of MS Office
- Learn the functional units and classify types of computers, how they process information and how individual computers interact with other computing systems and devices

Sr. No	Contents
Unit I	Computer Fundamentals: Data and Information, Characteristics of Computers, Various fields of application of Computers, Input-output Devices (Hardware, Software, Human ware and Firmware), Advantages and Limitations of Computer, Block Diagram of Computer, Function of Different Units of Computer, Classification of Computers. Types of Software, Application software and system software. Introduction to Operating System.
Unit II	Word Processor: Various aids useful for thesis writing, adding references to documents, citing a citation in text, macros, hyperlinks, mail-merge etc. Power Point Presentations: PowerPoint, Features of MS PowerPoint Clipping, Design layouts, hyperlinks, tables, insertion of multi-media files, Slide Animation, Slide Shows, Formatting etc. Case study. MS-Excel: Introduction to Electronic Spreadsheets, Feature of MS-Excel, Entering Data, Entering Series, Editing Data, Cell Referencing, ranges, Formulae, Functions, Auto Sum, Copying Formula, Formatting Data, Creating Charts, Statistical functions, Sorting Data, Filtering etc.
Unit III	Internet and applications of IT: Program Vs Software, Software Engineering, SDLC, DBMS, Data Models, DFD, Specification Tool: SMARTDRAW. Case Study on DFD.
Unit IV	Latest trends in Computing: Cloud computing, Data mining, Data Warehousing, Object Oriented Relational Database Management, Object Oriented Relational

	Database Management System, Distributed databases Concept, Three tier Client/Server Architecture, Digital Image Processing, etc.
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Course Outcomes: On completion of this course, the student will be:

CO1	CAR 502M.1	Present the graphical representations of data
CO2	CAR 502M. 2	Make use of applications of MS Office
CO3	CAR 502M. 3	Learn the functional units and classify types of computers, how they process information and how individual computers interact with other computing systems and devices

Recommended books:

1. Pardeep K. Sinha, Priti Sinha, Computer Fundamentals, BPB Publications.
2. Rajaraman, V., Fundamental of Computers. Prentice Hall India, New Delhi.
3. R. S. Salaria, Fundamentals of Computers, Salaria Publishing House

Ph.D. Course Work

COURSE NAME: EDUCATIONAL PSYCHOLOGY

COURSE CODE: EDU 503 A

Internal Marks: 40
External Marks: 60
Time: 3 Hours

Objectives: On completion of the course, the Research Scholars will be able to:

1. Understand the dynamics of Individual development.
2. Understand the dynamics of group behaviour.
3. Understand the concept of mental health and adjustment.
4. Describe the dynamics of Social behaviour.

UNIT-I

- Educational Psychology: Concept, need, Methods – Clinical, Differential, and Psychoanalytical
- Adolescence Development: Development related to cognitive, Conative and Affective domain with emphasis on critical thinking. Theories of Development (Freud, Erikson, and Piaget)

UNIT-II

- Mental Health and Adjustment: Mental Health – Factors influencing mental health and role of education for building good mental health of students and teachers.
- Behavioural Problems: Stress, Anxiety, Frustration and Aggression and their prevention and Control.

UNIT-III

- Dynamics of Social Development: Group Dynamics : Social Loafing, Social Facilitation
- Social Influence and Social Perception.

Course Outcomes: On completion of this course, the student will be:

CO1	EDU 503 A.1	Develop the insight to various methods of psychology
CO2	EDU 503 A.2	Understand the factors affecting growth and development of the learners
CO3	EDU 503 A.3	Understand the concept and importance of mental health
CO4	EDU 503 A.4	Understand the behavioral issues of learners

Recommended Books:

1. Barron Robert A. & Byrne Donn (2002). Social Psychology. New Delhi: Pearson Education.
2. Barry and Johnson (1964). Classroom Group behaviour. New York: Macmillan.
3. Bridges (1932). Emotional development in early infancy, Child development.
4. Cronbach (1954). Educational Psychology. Harcourt Jovanovich, Inc.
5. Crow, D. 1963). Educational Psychology. Urasia Publishing House.
6. Echols, M.N. (1942). Mental Hygiene and the Teacher Educational Method.
7. Elis & Robert, S. (1965). Educational Psychology. D. VanNostrand Company, Inc.
8. Garrison (1960). Growth and Development: Longmans.
9. Hayighurst (1957). Human Development and Education: Longman.
10. Kuppuswamy, B. (1972). Advanced Educational Psychology. Sterling Publishers.

Ph.D. Course Work

COURSE NAME: TEACHER EDUCATION

COURSE CODE: EDU 503 B

Internal Marks: 40

External Marks: 60

Time: 3 Hours

UNIT-I

- Meaning of teacher education and teacher training; Need and scope of teacher education; Objective of teacher education at: Elementary level, Secondary level, Higher level
- Current problem in teacher education; Agencies of teacher education: SCERT, NCERT, UGC, NCTE; Institute of teacher education, DIET, CTEs, IASEs, RIEs, UTD

UNIT-II

- Need and purpose of in-service and pre-service teacher education programme; Structure and models of teacher education programme; Critical analysis of existing in-service teacher education.
- Objective, procedure, and outcomes of Conference, Seminar, Symposium, Workshop and Panel discussion

UNIT-III

- Concept of innovation in teacher education programme; Incentive & award for innovative practice; Practice teaching (Micro, simulated, and team teaching) Vs internship; Interaction analysis technique
- Assessment of teaching learning process: Technique; Type of evaluation; Objective and criteria of evaluation of teacher education programmes; Critical evaluation of teacher education programmes

Course Outcomes: On completion of this course, the student will be:

CO1	EDU 503 B.1	Concept need and scope of teacher education.
CO2	EDU 503 B.2	Various techniques of higher learning
CO3	EDU 503 B.3	Various trends in teacher education programme

CO4	EDU 503 B.4	Technique of evaluation of the effectiveness of teacher education programme
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Recommended Books

- Allen, Dwight & Ryan, Kevin (1969): Microteaching Mass Addison – Wesley
- Bloom, B. S. and et al (1971). Handbook of formative and summative evaluation of student learning, New York: Mcgraw Hill Book Co.
- Buch M. B. & Palasane, M. M. (1968) Reading in in-service education, Sardar Patel University, Vallabh Vidya Nagar.
- Jagaria, N. K. & Singh, Ajit (1984) Core Teaching Skill- Micro-teaching Approach, New Delhi, NCERT.
- Khan, M. S. (1983). Teacher Education in India & Abroad. New Delhi, Ashih Publishing House.
- Mukherji, S. N. (1968). Education of Teachers in India, New Delhi: S. Chand & Co. -
- Panda, B. N. (2004). Teacher Education. APH, New Delhi.
- Passi, B. K. (1972). Becoming a better teacher. - Siddiqui, M. A. (1991). In-service teacher education, Ashish Publishing House, New Delhi.
- Singh, L. C. (1990). Teacher Education in India – A Source Book. New Delhi, NCERT.

Ph.D. Course Work
Course Name: Research Publications & Ethics

Course Code: RPE 503M

Internal Marks: 40
External Marks: 60
Time: 3 Hours

THEORY:

- **RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**
 1. Introduction to philosophy: definition, nature and scope, concept, branches
 2. Ethics: definition, moral philosophy, nature of moral judgments and reactions

- **RPE 02: SCIENTIFIC CONDUCT (5 hrs.)**
 1. Ethics with respect to Science and Research
 2. Intellectual honesty and research integrity
 3. Scientific Misconducts: Falsification, Fabrication and Plagiarism (FFP)
 4. Redundant publications: duplicate and overlapping publications, salami slicing
 5. Selective reporting and misrepresentation of data

- **RPE 03: PUBLICATION ETHICS (7 hrs.)**
 1. Publication ethics: definition, introduction and importance
 2. Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.
 3. Conflicts of interest
 4. Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
 5. Violation of publication ethics, authorship and contributorship
 6. Identification of publication misconduct, complaints and appeals
 7. Predatory publishers and journals

PRACTICE:

- **RPE 04: OPEN ACCESS PUBLISHING (4 hrs.)**
 1. Open access publications and initiatives

2. SHERPA/ ROMEO online resource to check publisher copyright & self-archiving policies
3. Software tool to identify predatory publications developed by SPPU
4. Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

- **RPE 05: PUBLICATION MISCONDUCT (4 hrs.)**

- A. Group Discussions (2 hrs.)
 1. Subject specific ethical issues, FFP, authorship
 2. Conflicts of interest
 3. Complaints and appeals: examples and fraud from India and abroad
- B. Software tools (2 hrs.)

Use of plagiarism software like Turnitin, Urkund and other open source software tools

- **RPE 06: DATA BASES AND RESEARCH METRICS (7 hrs.)**

- A. Databases (4 hrs.)
 1. Indexing databases
 2. Citation databases: Web of Science, Scopus, etc.
- B. Research Metrics (3 hrs.)
 1. Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score
 2. Metrics: h-index, g-index, i10index, altmetrics

Course Outcomes: On completion of this course, the student will be:

CO1	RPE 503 M.1	To understand the philosophy of science and ethics, research integrity and publication ethics
CO2	RPE 503 M.2	To identify research misconduct and predatory publications.
CO3	RPE 503 M.3	To understand indexing and citation databases, open access publications, research metrics (citations, h-index, impact Factor, etc.)
CO4	RPE 503 M.4	To understand the usage of plagiarism tools.

SUGGESTED READINGS:

- The Ethics of Teaching and Scientific Research By Miro Todorovich; Paul Kurtz; Sidney Hook.
- Research Ethics: A Psychological Approach By Barbara H. Stanley; Joan E. Sieber; Gary B. Melton
- Research Methods in Applied Settings: An Integrated Approach to Design and Analysis By Jeffrey A. Gliner; George A. Morgan Lawrence Erlbaum Associates, 2000
- Ethics and Values in Industrial-Organizational Psychology By Joel Lefkowitz Lawrence Erlbaum Associates, 2003.
- Robin Levin Penslar, Research Ethics: Cases and Materials, Indiana University Press
- Chowdhary, N., & Hussain, S. (2021). Handbook of Research and Publication Ethics. Bharti Publications: New Delhi

Ph.D. Course Work

Course Name: Research Project/ Term Paper

Course Code: MRP 504M

Each student enrolled for Ph.D. will have to undertake atleast two credit of Research Project/ Term Paper. The topic of the Research Project/ Term Paper will be given by the committee of faculty of the department with the approval of Head of the department. Student will make presentation on the assigned topic in front of all the faculty members and following criteria will be used to assess the performance of the students:

Criteria for assessment of Essay:

The faculty members of the department will evaluate the presentation of the students using the following criteria:

	Definition and Methodology	Literature review/ Conceptual Framework	Findings and Conclusion	Presentation and Communication of Ideas	Questions-answers	Report File
Marks	15	15	15	15	15	25

Averages of all the marks awarded by the faculty members will be utilized to final assess the performance of students.