# University of Mumbai



# No. AAMS\_UGS/ICC/2023-24/15

#### CIRCULAR:-

The Principals of the Affiliated Colleges, the Head of the University Departments and Directors of the Recognized Institutions in Faculty of Interdisciplinary studies are hereby informed that the recommendations made by the Board of Studies in **Education** at its meeting held on 01<sup>st</sup> August, 2022 and subsequently passed by the Board of Deans at its meeting held on 08<sup>th</sup> December, 2022 <u>vide</u> item No. 8.17 (R) have been accepted by the Academic Council at its meeting held on 06<sup>th</sup> April, 2023 <u>vide</u> item No. 8.17 (R) and that in accordance therewith, the revised syllabus of **Ph.D. Course work in Education**, as per appendix has been brought into force with effect from the academic year 2022-23.

(The said circular is available on the University's website www.mu.ac.in).

MUMBAI – 400 032 26<sup>th</sup> June, 2023

(Prof. Sunil Bhirud)
I/c. REGISTRAR

To

The Principals of the Affiliated Colleges, the Head of the University Departments and Directors of the Recognized Institutions in Faculty of Interdisciplinary studies.

#### A.C/8.17(R) /06/04/2023

Copy forwarded with Compliments for information to:-

- 1) The Dean, Faculty of Interdisciplinary studies,
- 2) The Chairman, Board of Studies Education,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Director, Department of Information & Communication Technology,
- 6) The Co-ordinator, MKCL.

#### Copy for information and necessary action :-

- 1. The Deputy Registrar, College Affiliations & Development Department (CAD),
- 2. College Teachers Approval Unit (CTA),
- 3. The Deputy Registrar, (Admissions, Enrolment, Eligibility and Migration Department (AEM),
- 4. The Deputy Registrar, Academic Appointments & Quality Assurance (AAQA)
- 5. The Deputy Registrar, Research Administration & Promotion Cell (RAPC),
- 6. The Deputy Registrar, Executive Authorities Section (EA)
  He is requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to the above circular.
- 7. The Deputy Registrar, PRO, Fort, (Publication Section),
- 8. The Deputy Registrar, Special Cell,
- 9. The Deputy Registrar, Fort Administration Department (FAD) Record Section,
- 10. The Deputy Registrar, Vidyanagari Administration Department (VAD),

#### Copy for information:-

- 1. The Director, Dept. of Information and Communication Technology (DICT), Vidyanagari,
  - He is requested to upload the Circular University Website
- 2. The Director of Department of Student Development (DSD),
- 3. The Director, Institute of Distance and Open Learning (IDOL Admin), Vidyanagari,
- 4. All Deputy Registrar, Examination House,
- 5. The Deputy Registrars, Finance & Accounts Section,
- 6. The Assistant Registrar, Administrative sub-Campus Thane,
- 7. The Assistant Registrar, School of Engg. & Applied Sciences, Kalyan,
- 8. The Assistant Registrar, Ratnagiri sub-centre, Ratnagiri,
- 9. P.A to Hon'ble Vice-Chancellor,
- 10. P.A to Pro-Vice-Chancellor,
- 11. P.A to Registrar,
- 12. P.A to All Deans of all Faculties,
- 13. P.A to Finance & Account Officers, (F & A.O),
- 14. P.A to Director, Board of Examinations and Evaluation,
- 15. P.A to Director, Innovation, Incubation and Linkages,
- 16. P.A to Director, Department of Lifelong Learning and Extension (DLLE),
- 17. The Receptionist,
- 18. The Telephone Operator,

#### Copy with compliments for information to :-

- 19. The Secretary, MUASA
- 20. The Secretary, BUCTU.

# University of Mumbai



**Revised Ph.D Course work in Education** 

(With effect from the academic year 2022-23)

# University of Mumbai



O: Title of Course	Ph.D Course work in Education
O: Eligibility	M.Ed. and PET/NET/SET and B+
Level:	P.G. / <del>U.G./ Diploma / Certificate</del>
Pattern:	Yearly
Status:	Revised
To be implemented from Academic Year :	2022-23

Signature: Signature:



**Chairman of Board of Studies** 

Faculty of Dean

**Faculty of Dean** 

#### **UNIVERSITY OF MUMBAI**

#### Ph.D. Course work in Education,

#### Introduction

The teaching programme for research students pursuing their doctoral degree in Education will consist of three courses spread over a period of six months and will comprise of 15 credits (M.Phil. /Ph.D. UGC guidelines 2016)and 1 credit = 12hrs. This programme is developed with the objective of providing the research students the maximum guidance in the conceptualization, theorization, research designing, data collection and analysis of their particular topic of doctoral research.

After the selection process is completed by the research centre, the students should start the pre-Ph.D. programme.

Attendance for the entire programme is compulsory and as per University regulations, it is mandatory that students maintain a 75% attendance during the entire course.

On completion of the teaching programme, the concerned Ph.D. centre will announce the names of those candidates who have successfully finished the programme, as well as the grades they have obtained and certify the completion of the programme.

Those students, who have not completed the research programme satisfactorily, as per the requirements of the department, will be asked to repeat the course in the subsequent year and only after they have successfully completed the course programme, will they be permitted to proceed with their doctoral research work.

It will be endeavoured to use the suitable pedagogy to teach all three courses. This would involve the students, having in-advance in their possession, the reading material for discussion and deliberation during each input session.

It will be the duty of the course co-ordinator to ensure that all resource persons being invited to take input sessions will make available, at least a week in-advance, the reading material that he / she will utilize during the input session.

Participants will be provided with a time-table, at the beginning of the programme, stating the different course / resource persons/topics/timings etc.

This programme will be made up of three courses in research methodology. Each course will be of 5 credits of which 2 credits will be for teaching instructions and 3 credits for assignments/ practical. The courses are:

- 1. Research Methodology in Education
- 2. Statistical Techniques in Educational Research
- 3. Research Methods and Computer Application

# Pre-Ph.D. COURSE WORK CONTENT

#### **COURSE 1: RESEARCH METHODOLOGY IN EDUCATION**

**Objectives:** This course is designed to equip students with the requisite knowledge of research methodology in education including research methods, variables, hypotheses, sampling, tools and techniques.

#### **Module 1: Educational Research**

- a) Educational Research: Concept and types of research, Aims of research as a scientific activity (Problem-solving, Theory Building and Prediction).
- b) Approaches to educational research: Quantitative, Qualitative and Mixed Methods.
- c) Skills and ethics required for conducting research

## Module 2: Components of a Research Proposal

- a) Formulation of research problem
- b) Theoretical and conceptual framework
- c) Review of related literature
- d) Rationale and need of the study
- e) Definitions: (Conceptual and Operational)
- f) Variables: Meaning and Types
- g) Research Questions
- h) Hypotheses: Concept, Sources and Types
- i) Assumptions (if any)
- j) Methodology, Sample and Tools
- k) Scope, limitations and delimitations
- 1) Significance of the study
- m) Bibliography, Time frame and Budget
- n) Chapterization

#### **Module 3: Research Methods**

- a) Descriptive Research: Survey, Causal-Comparative and Correlational
- b) Historical Research: Meaning, scope and steps of historical research, types of historical sources, external and internal criticism of historical sources.
- c) Experimental Research: Pre-Experimental, Quasi-Experimental and True-Experimental Designs, Factorial Design, internal and external experimental validity and controlling extraneous and intervening variables.

#### **Module 4: Sampling**

- a) Concept of universe and sample
- b) Determining sample size
- c) Techniques of sampling (Probability and Non-Probability Sampling)

### **Module 5: Tools and Techniques of Data Collection**

a) Tools of Data collection (Meaning and Characteristics)

- Rating scale
- Attitude scale
- Opinionnaire
- Questionnaire
- Aptitude Test
- Check List
- Inventory
- Semantic Differential Scale
- Achievement Tests
- b) Techniques of Data Collection(Meaning and Characteristics)
  - Observation
  - Interview
  - Projective
- c) Tool Development
  - Validity (Meaning, types, indices and factors affecting validity)
  - Reliability (Meaning, types, indices and factors affecting reliability)
  - Item Analysis (Discrimination Index, Difficulty Index)
  - Standardization of a tool

#### **EVALUATION: -**

- a) Assignment 1 (3000 words) written and presentation
- b) Assignment 2 (3000 words) written and presentation (Both assignments will be under the supervision of the course teacher)
- c) Essay: (3000 words) Writing a research proposal, to be submitted at the end of the course

(The essay will be based on a theme / issue specific to the student's doctoral work) Grades will be assigned for the above credits.

#### COURSE 2: STATISTICAL TECHNIQUES IN EDUCATIONAL RESEARCH

**Objectives:** This course is designed to make students aware of various statistical techniques for descriptive data analysis and for testing of hypotheses including parametric, and non-parametric techniques. It also includes the use of computers in conceptual and empirical literature review, drawing of graphs and data analysis.

#### **Module 1: Types of Distribution**

- a) Discrete and Continuous distribution of data.
- b) Normal Probability Distribution (Areas under the normal curve, Applications)
- c) Types of Measurement Scale (Nominal, Ordinal, Interval and Ratio)

#### **Module 2: Descriptive Data Analysis (only theory)**

- a) Measures of central tendency, Variability
- b) Measures of Divergence from Normality (Skewness, Kurtosis)

c) Estimation of Population Parameters of Mean and SD.

### **Module 3: Hypothesis Testing**

- a) Testing of Hypotheses,
- b) Levels of Significance, Type I and Type II Errors
- c) Sample size and Power of a test

### Module 4: Parametric Techniques of Data Analysis (Use and interpretation)

- a) Conditions to be satisfied for using parametric techniques
- b) t-test for comparison of mean scores
- c) ANOVA (One way and two way), ANCOVA
- d) Pearson's Coefficient of Correlation

## **Module 5: Non-Parametric Techniques(Use and interpretation)**

- a) Mann-Whitney U-Test
- b) Chi-square (Equal Probability and Normal Probability Hypotheses)
- c) Spearman Rho

#### **EVALUATION:**

- a) Assignment 1 (3000 words) written and presentation
- b) Assignment 1 (3000 words) written and presentation (Both assignments will be under the supervision of the course teacher)
- c) Essay (3000 words) to be submitted at the end of the course (The essay will be based on a theme/issue specific to the students' doctoral work.) Grades will be assigned for the above credits.

#### **COURSE 3:RESEARCH METHODS AND COMPUTER APPLICATION**

**Objectives**: This course is designed to familiarize students with various aspects of qualitative and mixed methods research methodology and computer applications.

#### **Module 1: Qualitative Research Methods**

Salient features of the following methods of qualitative research:

- a) Grounded Theory Design
- b) Narrative Research
- c) Case Study
- d) Ethnography

#### **Module 2: Conducting Qualitative Research**

- a) Sampling techniques in qualitative research
- b) Data collection in qualitative research
- c) Data analysis and report writing in qualitative research

#### **Module 3: Mixed methods Designs**

- a) Types: (sequential explanatory design, sequential exploratory designand concurrent triangulation design)
- b) Data collection in Mixed methods design
- c) Analysis and Report writing

# Module 4: Computer application in Research

- a) Use of computer and internet in research
- b) Literature Reviewusing internet(ERIC, Shodhganga, INFLIBNET, Google Scholar)
- c) Data Analysis using MS-Excel

# **Module 5: Research Reporting**

- a) Format, Style and Mechanics of Report Writing with Reference to (i) Thesis and (ii) Paper
- b) Bibliography and References
- c) Plagiarism: Types, Copyright and fair use and how to avoid plagiarism

#### **EVALUATION:**

- a) Assignment 1 (3000 words) written and presentation
- b) Assignment 2 (3000 words) written and presentation (Both assignments will be under the supervision of the course teacher)
- c) Essay (3000 words): Research Paper writing and plagiarism check; to be submitted at the end of the course
  - (The essay will be based on a theme / issue specific to the students' doctoral work.) Grades will be assigned for the above credits.

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