ಬೆಂಗಳೂರು ನಗರ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ



### BENGALURU CITY UNIVERSITY

Office of the Registrar, Central College Campus, Dr. B.R. Ambedkar Veedhi, Bengaluru – 560 001. PhNo.080-22131385, E-mail: registrarbcu@gmail.com

No.BCU/Ph.D-Syllabus / 46 /2025-26

Date. 02.05.2025

### **NOTIFICATION**

Sub: Course Work Syllabus of Ph.D in Education of Bengaluru City University

Ref: 1. The recommendations of the Board of Studies in Education (PG)

2. Approval of the Vice-Chancellor dated.02.05.2025

In pursuance to the recommendations of the Board of Studies in Education (PG) and pending approval of the Academic Council, the Course Work Syllabus of Ph.D in Education of Bengaluru City University with is hereby notified for information of the concerned. Effective from the academic year 2025-26

The copy of the Syllabus is notified in the University Website: <a href="www.bcu.ac.in">www.bcu.ac.in</a> for information of the concerned.

REGISTRAR

To.

1. The Dean, Faculty of Education, BCU.

2. The Chairman & Members of BOS in Education(PG), BCU.

3. The Principals of the concerned affiliated Colleges of BCU - through email.

4. The P.S. to Vice-Chancellor/Registrar/Registrar (Evaluation), BCU.

5. Office copy / Guard file.

# Bengaluru City University

Natural Science Block Bengaluru-560001



# Ph.D Course Work -2025

Regulations and Syllabus With effect from 2025

Sl. No	Name of the Course	Contact Hourspe rweek	No ofCred itsperp aper	Continuous Assessment	Course End Examin ation	Total	Examinat on Hours
1	Paper- I Research Methodology	04	04	30	70	100	03
2	Paper – II: Cognate/Core Subject Trends In Higher Education And Teacher Education	04	04	30	70	100	03
3	Paper– III: Research and PublicationEthics (RPE)	02	02	15	35	50	02
4	Paper – IV: Field of Specialization (Ph.D candidates are requiredto study one of the coursesdepending upon their field ofspecialization)	04	04	30	70	100	03
	Course Sub Total		14	105	245	350	
5	Viva voce	-	n = 189	-	-	50	-
	Grand total						-

### Paper-I - Research Methodology

### **Objectives:**

At the end of the course, the students will be able to:

- 1. Apply the insights from related literature in different stages of their research
- 2. adopt appropriate sampling techniques.
- 3. select appropriate tools/techniques for data collection
- 4. explain the steps of different methods of research.
- 5. Discriminate between qualitative and quantitative data
- 6. apply statistical techniques for data analysis
- 7. use statistical packages for data analysis.

EXISTING	REVISED		
Unit 1:Introduction to Educational Research  Educational Research: meaning, purpose, need and importance, Ethical and Social responsibilities of a Researcher, Need and Importance, Sources of Review of related literature, Selection of Problem: Sources and criteria for selection of a problem	Unit 1: Introduction to Educational Research Educational Research: Meaning, Purpose, Need and importance; Methods of Research: Quantitative: Descriptive-Survey, Case study,		
Unit 2: Sampling Techniques and Methods of Research	Unit 2: Review of related literature and Research Methodology		
Concept of population and sample,	Review of related literature:- Importance and Purpose		
Characteristics of good sample, Sampling- types (probability and non-probability), sampling error; systematic and non-	at various stages of research; Sources for literature survey: Offline and Online Objectives of Research study;		
systematic sample	Variables: Categorization of variables:- Continuous and Discrete, Qualitative and Quantitative, Dependent,		

Independent, Moderate, Intervening variables, Criterion and Background variables;

Hypotheses: Types;

Sampling: Concept of population and sample, Characteristics of good sample, Sampling- types of probability and non-probability sampling, Sample size, Sampling error;

Research Proposal- components

### Unit 3: Tools and Techniques of data collection

Quantitative tools of data collection: Attitude Scales: Meaning and Steps of attitude Scale development using Likert type. Achievement tests meaning and development

Qualitative Techniques of data collection: Observation Schedules and Interview Schedules

Characteristics of good research instruments: reliability, - meaning, concept, computation and types (test-retest, split half): Validity-meaning, concept, computation, and types(content, construct, concurrent and predictive)

#### Unit 4: Statistical Treatment of data

Parametric Statistics: Meaning characteristics, one tailed & two tailed test, test of significance of mean difference-'t'test for independent and non-independent sample, Type I and Type II Error, Analysis of Variance (ANOVA)- concept and assumptions of one-way and two-way ANOVA, uses, and limitations of ANOVA. Testing relationships: correlations- meaning and types. Pearson's product moment coefficient of correlation, partial correlation, multiple correlation. Regression - concept, types (simple and multiple regression), application and interpretation.

Non-parametric Statistics: chi square test, computation, application and interpretation. Data analysis using computers, report writing

#### Unit 3: Tools and Techniques of data collection

Tools: Achievement tests- development, Attitude scales- meaning and development of Likert scale, Check list, Questionnaire, Opinionnaire, Interview schedule, Observation schedule, Inventory

Techniques: Observation, Interview, Focused Group Discussion, Document Analysis, Case study

Triangulation of data, data cleaning

Characteristics of good research instruments: reliability, - meaning, concept, computation and types (test-retest, split half): Validity- meaning, concept, computation, and types (content, construct, concurrent and predictive)

# Unit 4: Statistical Treatment of data & Report writing

Distribution of Data- Normal, Skewness and Kurtosis Parametric Statistics: Meaning & characteristics, one tailed & two tailed test, test of significance of mean difference –'t'- test for independent and non-independent sample, Type I and Type II Error, Analysis of Variance (ANOVA)- concept and assumptions of one-way and two-way ANOVA - calculation, uses, and limitations, MANOVA, Testing relationships: correlations- meaning and types. Pearson's product moment coefficient of correlation, partial correlation, multiple correlation. Regression – concept, types (simple and multiple regression), application and interpretation.

Non-parametric Statistics: chi square test, computation, application and interpretation.

Data analysis using Software packages, AI for data analysis and interpretation

Testing of hypothesis, Degrees of Freedom, Levels of

significance,
Report writing: Preliminary section, Body of the
Report- Chapterization, Reference and Appendix,
Language and Style of presentation, Bibliography-
APA style.
Characteristics of good research report
Publication of Research Articles

#### References:

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- 3. Lokesh Koul. Methodology of Educational Research. Vikas Publications, New Delhi.
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- 5. Tuckman, Bruce, W. Conducting Educational Research. Hare court brace, New York, 1972.
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- George, A Ferguson (1981), Statistical Analysis in Psychology and Education, Mc Graw Hill, Kogakusha Ltd., London, Tokyo.
- Henry, E.Garrett (1967), Statistics in Psychology and Education, Vakils Feffer and Simons Pvt.Ltd., Bombay.

### Paper II: Cognate/Core Paper

### Trends in Higher Education and Teacher Education

### **Objectives:**

At the end of the course, the students will be able: -

- 1. To discuss with latest trends in higher education in India.
- 2. To elucidate innovative and informative issues in higher education, teacher education etc.,
- 3. To elucidate professional development of teacher educators.
- 4. To explain the quality concerns and recent issues in teacher education.

Existing	Revised		
Unit 1: Emerging Trends in Higher Education in India; Changing Paradigm in Higher Education in India; National Knowledge Commission (NKC): goals, importance and recommendations; Education for All (EFA): UNESCO six goals and objectives: The Dakar declaration, World Declaration on Education, Right to Education (RTE); objectives, Constitutional Provisions, RTE Bills, RTE Act -2009-2011. Implementations and Status.	<ul> <li>Unit-I: Emerging Trends in Higher Education and Teacher Education</li> <li>Sustainable development goals-Quality Education, Gender Equality.</li> <li>Multidisciplinary Education and Institutional Restructuring.</li> <li>Personalised Learning and Career Focussed Learning.</li> <li>Recent Trends in Teacher Education-ITEP, 1 and 2 years B.Ed and M.Ed.</li> </ul>		
Unit 2:Teacher Education in India and Professional Development Teacher Education: Meaning and Goals; Professional Development: Concept, Trends, Issues, Importance, Strategies, Changing Paradigm in teaching profession. Teacher Profession: Code of Conduct and ethics; Professional Bodies; role of NCTE, NCERT, UGC, MHRD and NUEPA.	<ul> <li>Unit-II: Technology Enhanced Learning in Higher Education</li> <li>ICT integration and Digital Pedagogies in HEI's and Professional Education.</li> <li>SWAYAM,MOOC, Digital Repositories (NDL and Shodhganga).</li> <li>Role of AI,AR/VR and EDTECH in curriculum delivery.</li> <li>Promoting Digital Literacy among Teacher Educators.</li> </ul>		

### Unit 3: Quality Concerns in Higher Education and Research

Quality, Concept & features. Quality enhancement in teacher education. Accreditation concept, parameters, Role of NAAC, Grading System, Continuous Quality & issues in Research in Education.

# Unit-III: Quality Concerns in Higher Education and Research

- Concept, features, issues , challenges and solutions to quality in higher education in India. Factors influencing higher education.
- Accreditations: Concept, Parameters, Role of NAAC, Grading system, Continuous Quality Monitoring.
- Continuous Professional Development for Teachers of Higher Education and Teacher Educational Institutions
- · Trends and Issues in Research in education.

### Unit 4: Application of Technology in Research

Digital Literacy: Meaning and importance. Web-based learning: E-learning. Flip Classes and virtual classrooms. E-Resources, ICT usage for Presentation, Communication & dissemination of research.

# Unit-IV: Innovations in Pedagogy and Assessment

- Teacher Education for Inclusive Classrooms-UDL, Special Education needs (SEN)
- Social Emotional Learning and Mental Health Support System
- Alternative Assessments-E-Port folios, Rubrics, Peer/Self Evaluation.
- Challenges and Issues in adopting innovations in pedagogy and Assessment

#### References:

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- 2. Apps W.Jerold (1988), Higher Education in a learning society, Jossey-Bass Publications.
- Buckingham David (2003), Media Education-Literacy Learning & Contemporary Culture, Blackwell Publishing Ltd.
- Chadha Gaurav (2002). E-learning: An expression of Knowledge economy. Tata McGraw Hill Publishers, New Delhi.
- Goel.Arun Goel.S.L (2010). Quality & Excellence in Higher Education. Deep & Deep Publications, New Delhi.
- 6. Gough Stephen & Scoot William (2007), Higher Education & Sustainability.
- Hussain Noushad (2010). Computer Assisted Learning. Shipra Publications, New Delhi

- N.Knight Peter and Brown Sally(2005), Assessing Learner in Higher Education, Rotledge.
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- Pondey Mriula (2007), Principles of Curricular Reforms. Seema Wasan Publications, New Delhi.
- 11. Prasad Janardan (2009), Panorama of Indian Education, Kanishka Publisher Distributors, New Delhi.
- 12. Pring Richard et.al.,(2009), Education for all: The Future of Education, Routledge Taylor and Francis.
- 13. Sharma Promila (2008) Principles of Curriculum. APH Publishing Corporation.
- 14. Shukla Chahaya (2004), Assessment & Evaluation in Higher Education, Sumit Enterprises, New Delhi.
- Verma Mahesh (2006), Technology in Digital Education, Mural Lal and Sons, New Delhi.
- 16. Voogt Joke and Knezek Gerald (2008), International Handbook of Information Technology in Primary & Secondary Education, Springer Publications.

### Paper-III Research And Publication Ethics (RPE)

### **Objectives:**

At the end of the course, the students will be able to:

- 1. explain the role of ethics in research and publication.
- 2. Publish research articles considering the ethical principles
- 3. Develop awarenessof online tools for detecting plagiarism.
- 4. Publish quality research articles
- 5. Develop awareness about consequences of violation of publication ethics

#### Theory

- RPE 01: Philosophical and Ethics (3 hrs)
  - 1. Introduction to philosophy: definition, nature and scope, concept, branches
  - 2. Ethics: definition, moral philosophy, nature of moral judgements 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
  - Publication misconduct: definition, concept, problems that leads to unethical behavior and vice versa, types.
  - 5. Violation of publication ethics, authorship and contribution
  - 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.
  - SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies.
  - 3. Software tool to identify predatory publications developed by SPPU
  - Journal finder/journal suggestion tolls 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 tolls

### RPE 06: Databases and Research Metrics (7 hrs)

- A. Databases (4hrs)
  - 1. Indexing databases
  - 2. Citation databases: Web of Science, Scopus, etc.
- B. Research Metrics (3 hrs)
  - Impact Factor of Journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score
  - Metrics: h-index, g index, i10 index, altmetrics

#### Reference:

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- Ron Iphofen (2020), "Handbook of Research Ethics and Scientific Integrity", Springer International Publishing, ISBN: 9783030167585
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- Committee on Publication Ethics (COPE): Guidelines on good publication practice ( https://publicationethicsorg/resource/guidelines).
- O Galipeau j, Barbour V: Baskin P, Bell-Syer S, Cobey K, Cumpston M, Deeks, Garner P, Maclehose H, Shamseer L, Straus S, Tugwell P, Wager E, Winker M, Moher D (2016) A Scopingreview of competencies for scientific editors of biomedical journals BMC Medicine 20164:16DOI: 10,1186/s12916-016-0561-2.
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