# Ph.D. Course Work Common Syllabus

| Paper Name: Research Methodology | Paper Code: PHD-101/RM | Credits: 4 (4-0-0) |
|---|---|---|
| **Evaluation (Maximum Marks = 100)** | **Internal = 30** | **External = 70** |

**Course Objectives**

1. To introduce the fundamental concepts, methods, and ethics of scientific research.
2. To develop skills in research design, data collection, analysis, and interpretation.
3. To enable students to formulate research problems and communicate findings effectively.

| Unit | Contents | Lectures |
|---|---|---|
| **I** | Foundations of Research: Meaning, Objectives, Motivation, Utility. Concept of theory, empiricism, deductive and inductive theory. Characteristics of scientific method – Understanding the language of research – Concept, Construct, Definition, Variable. Research Process. Problem Identification & Formulation – Research Question – Investigation Question – Measurement Issues – Hypothesis – Qualities of a good Hypothesis –Null Hypothesis & Alternative Hypothesis. Hypothesis Testing – Logic & Importance. | **10** |
| **II** | Research Design: Concept and Importance in Research – Features of a good research design – Exploratory Research Design – concept, types and uses, Descriptive Research Designs – concept, types and uses. Experimental Design: Concept of Independent & Dependent variables.<br>Qualitative and Quantitative Research: Qualitative research – Quantitative research – Concept of measurement, causality, generalization, replication. Merging the two approaches. | **10** |
| **III** | Sampling: Concepts of Statistical approach, Sample, Sampling Frame, Sampling Error, Sample Size. Characteristics of a good sample. Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage sampling. Determining size of the sample – Practical considerations in sampling and sample size.<br>Data Analysis: Data Preparation – Univariate analysis (frequency tables, bar charts, pie charts, percentages), Bivariate analysis – Cross tabulations and Chi-square test including testing hypothesis of association. | **15** |
| **IV** | Measurement: Concept of measurement– what is measured? Problems in measurement in research – Validity and Reliability. Techniques of Scientific Measurement.<br>Interpretation of Data and Paper Writing – Layout of a Research Paper, Journals in Computer Science, Impact factor of Journals, When and where to publish? Ethical issues related to publishing, Plagiarism and Self-Plagiarism. Use of Encyclopedias, The art of Scientific Communication. | **12** |

| | | |
|---|---|---|
| **V** | Use of tools/techniques for Research: methods to search required information effectively, Reference Management Software like Endnote/Zotero/Mendeley, Software for paper formatting like LaTeX/MS Office, Software for detection of Plagiarism. Presentation in Seminars and Conferences, Sponsored Research-basics, Major funding bodies for research, National- DST, UGC, CSIR, ICMR, DBT, SERB, ISRO, and DRDO, International- NSF, NIH, Horizon Europe and UNESCO. | **13** |
| | **Total** | **60** |

## Suggested Readings


1. Kothari, C. R., and Gaurav Garg. Research Methodology: Methods and Techniques. 4th ed., New Age International Publishers, 2019.
2. Creswell, John W., and J. David Creswell. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 5th ed., SAGE Publications, 2018. https://us.sagepub.com/en-us/nam/research-design/book255675
3. Saunders, Mark, Philip Lewis, and Adrian Thornhill. Research Methods for Business Students. 8th ed., Pearson Education, 2019.
4. Bryman, Alan. Social Research Methods. 5th ed., Oxford University Press, 2016. https://global.oup.com/ukhe/product/social-research-methods-9780199689453
5. Flick, Uwe. An Introduction to Qualitative Research. 6th ed., SAGE Publications, 2018.
6. Walliman, Nicholas. Research Methods: The Basics. 2nd ed., Routledge, 2017. https://www.routledge.com/Research-Methods-The-Basics/Walliman/p/book/9781138693981
7. Kumar, Ranjit. Research Methodology: A Step-by-Step Guide for Beginners. 5th ed., SAGE Publications, 2022.
8. Neuman, W. Lawrence. Social Research Methods: Qualitative and Quantitative Approaches. 8th ed., Pearson, 2014.
9. Research Methods in Psychology. https://www.saylor.org/courses/psych301/
10. https://onlinecourses.nptel.ac.in/noc23_ge36/preview
11. https://onlinecourses.nptel.ac.in/noc22_ge08/preview

# Ph.D. Course Work Common Syllabus

| Paper Name: Research and Publication Ethics | Paper Code: PHD-102/RPE | Credits: 2 (2-0-0) |
|---|---|---|
| **Evaluation (Maximum Marks = 100)** | Active participation, group discussion and quizzes (25%); Practical: 40%; and End Semester written examination: 35 % | |

**Introduction:**

This course is designed to create awareness among doctoral students about research and publication ethics and different types of unethical practices and misconduct in publications. This course has total 6 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, Open Access publications, research metrics (citations, h-index, Impact Factor, etc.) and Plagiarism tools will be introduced in this course.

## Course Structure

The course comprises of six modules listed in table below. Each module has 4-5 units.

| Modules | Unit title | Teaching hours |
|---|---|---|
| **Theory** | | |
| RPE 01 | Philosophy and Ethics | 4 |
| RPE 02 | Scientific Conduct | 4 |
| RPE 03 | Publication Ethics | 7 |
| **Practice** | | |
| RPE 04 | Open Access Publishing | 4 |
| RPE05 | Publications Misconduct | 4 |
| RPE 06 | Databases and Research Metrics | 7 |
| | **Total** | **30** |

## 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 judgements and reactions

### RPE 02: SCIENTIFIC CONDUCT (5hrs.)

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 misrepresentations of data.

### RPE 03: PUBLICATION ETHICS (7 hrs.)

1. Publication ethics: definition, introduction and importance
2. Best practices/standards setting initiatives and guidelines: CARE, 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 Tools to Identify Predatory Publications
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, falsification, fabrication, and plagiarism (FFP), authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad

### B. Software tools (2hrs.)

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

## RPE 06: DATABASES AND RESEARCH METRICS (7 hrs.)

### A. Databases (4 hrs.)

1. Indexing Databases
2. Citation Databases: Web of Science, Scopus, etc.

### B. Research Metrics (3hrs.)

1 Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPR, Cite Score

2 Metrics: h-index, g-index, i10 index, altmetrics

## Essential Readings


- Suber, P. (2012). *Open Access*. Cambridge, MA, USA: MIT Press.
- Resnik, D.B. (2011). What Is Ethics in Research & Why Is it Important. National Institute of Environmental Health Sciences, I-10.
- National Academy of Sciences, National academy of Engineering and Institute of Medicine (2009). *On Being a Scientist: A Guide of Responsible Conduct in Research*: Third Edition, National Academies Press.
- Madalli, D.P. (2015). *Concepts of Openness and Open Access*. UNESCO Curriculum for Researchers, Module 2. Paris: UNESCO.
- MacIntyre, Alasdair (1967). A Short History of Ethics. London.
- Kanjilal, U. & Das, A.K. (2015). *Introduction to Open Access*. UNESCO Curriculum for Library Schools, Module 1. Paris: UNESCO.
- INSA (2019). Ethics in Science Education, Research and Governance, Edited by K. Muralidhar, A. Ghosh, & A.K. Singhvi. New Delhi: Indian National Science Academy. ISBN: 9788193948217.
- Das, A.K. (2015). *Research Evaluation Metrics*. UNESCO Curriculum for Researchers, Module 4. Paris: UNESCO.

- Das, A.K. & Mishra, S. (2014). Genesis of Altmetrics or Article-level Metrics for Measuring Efficacy of Scholarly Communications: Current Perspectives. *Journal of Scientometric Research*, 3(2): 82-92.
- Chaudhari, N. & Baliga, V. (2015). *Intellectual Property Rights*. UNESCO Curriculum for Researchers, Module 3. Paris: UNESCO.
- Chaddah, P. (2018). Ethics in Competitive Research: Do Not Get Scooped; To Not Plagiarized. ISBN: 9789387480865
- Bird, A. (2006). Philosophy of Science. Routledge.


Supplementary Readings


- ICMR (2017). *National Ethical Guidelines for Biomedical and Health Research Involving Human Participants*. New Delhi: Indian Council of Medical Research.
- Indian Sociological Society (2020). *ISS Code of Ethics*. New Delhi: Indian Sociological Society.
- PSA (2019). *Draft National Policy on Academic Ethics*. New Delhi: Principal Scientific Adviser (PSA) to the Government of India.
- The InterAcademy Partnership (2022). *Report: Combatting Predatory Academic Journals and Conferences*. Trieste: The InterAcademy Partnership.
- UGC (2019). *Consortium for Academic Research and Ethics (CARE)*. New Delhi: University Grants Commission.
- UGC (2020). *Good Academic Research Practices*. New Delhi: University Grants Commission.
- UNESCO (2021). *UNESCO Recommendation on Open Science*. Paris: UNESCO.
- Das, A.K. (2008). *Open Access to Knowledge and Information: Scholarly Literature and Digital Library Initiatives - the South Asian Scenario*. New Delhi: UNESCO, ISBN 9788189218218.
- Das, A.K. (2015). *Scholarly Communications*. UNESCO Curriculum for Researchers, Module 1. Paris: UNESCO.
- Das, A.K. (2019). Research Integrity in the Context of Responsible Research and Innovation Framework. *DESIDOC Journal of Library & Information Technology*, 39(2): 82-86.
- Das, A.K. (2020). UNESCO Recommendation on Open Science: An Upcoming Milestone in Global Science. *Science Diplomacy Review*, 2(3): 39- 43.
- Mishra, S. & Das, A.K. (2015). *Sharing your Work in Open Access*. UNESCO Curriculum for Researchers, Module 5. Paris: UNESCO.

- Nisha, F., Das, A.K. & Tripathi, M. (2020). Stemming the Rising Tide of Predatory Journals and Conferences: A Selective Review of Literature. *Annals of Library and Information Studies*, 67(3): 173-182.
- Smith, I. (2015). *Open Access Infrastructure*. UNESCO Curriculum for Library Schools, Module 2. Paris: UNESCO.
- Bealt, J. (2012). Predatory Publishers Are Corrupting Open Access. *Nature*, 489(7415),179-179.

# Ph.D. Course Work Common Syllabus

| Paper Name: Computer Application | Paper Code: PHD-103/CA | Credits: 4 (4-0-0) |
|---|---|---|
| **Evaluation (Maximum Marks = 100)** | **Internal = 30** | **External = 70** |

**Course Objectives**

1. To introduce the fundamental concepts, architecture, and classifications of computers along with operating systems like Windows and Linux.
2. To develop proficiency in using Microsoft Office tools (Word, Excel, PowerPoint) for document preparation, data analysis, and presentations.
3. To familiarize students with internet usage, email communication, and basic networking concepts for effective digital connectivity and communication.

| Unit | Contents | Lectures |
|---|---|---|
| **I** | Definition and Characteristics of systems-Hardware & Software, Windows and Linux (Latest Version) Microsoft Tools- Definition and Characteristics of Computers: Classification of Computers; Application of Computers; Hardware; Software; Functional Units of a Computer System; Computer Architecture; Bit, Nibble and Byte. Windows: Introduction to Windows Operating System; Windows Features; Starting Windows; Parts of Windows Screen; Shortcuts in Winodows; Windows Applets; Windows : My Computer; Working with files and Folders; what is MS-DOS? Booting Process; The DOS Directory Structure; Referencing Group of files; Command Syntax; Types of Commands; Microsoft Word (Latest Version): Introduction to Microsoft Tools; Starting Word; Mail Merge. | **15** |
| **II** | Microsoft Excel; (Latest Version) Excel Features; Entering data into a Cell; Entering Numbers; Spreadsheets Operations; Freezing Window Panes; Excel Offers Several Methods for Selecting Cells; Erasing the Content of A Cell; Formatting Cells from the Home Tab; The Format Painter; Formulas and Functions; Using Logical Functions; Date and Time Functions; Math and Trigonometric Functions; Statistical Functions; Copying Formulas; Charts; Creating a New Embedded Chart; Type of Charts; Formatting Chart Elements from the Format tab. | **15** |
| **III** | Microsoft PowerPoint (Latest Version) What is Presentation? Introduction to PowerPoint; Starting PowerPoint; PowerPoint Views; Save a Presentation; Exiting PowerPoint; Working with Slides. | **10** |
| **IV** | Introduction to Internet and E-Mail Hardware requirement; to connect to the Internet; Types of Connections; Internet Service Providers; Internet Addressing; Resource Addressing; The World Wide Web; E-Mail. | **10** |
| **V** | Networking Concepts What is a Networks?; Uses of Computer Networks; Network Topologies; Network Hardware and Software. | **10** |

| | | |
|---|---|---|
| | **Total** | **60** |

**Suggested Readings**


1. Rajaraman, V. Fundamentals of Computers. 6th ed., PHI Learning, 2018.
2. Sinha, P. K., and Priti Sinha. Computer Fundamentals. BPB Publications, 2010.
3. Balagurusamy, E. Programming in ANSI C. 8th ed., McGraw Hill Education, 2019.
4. Forouzan, Behrouz A. Data Communications and Networking. 5th ed., McGraw Hill Education, 2017.
5. Tanenbaum, Andrew S., and Herbert Bos. Modern Operating Systems. 4th ed., Pearson, 2014.
6. Stallings, William. Computer Organization and Architecture: Designing for Performance. 10th ed., Pearson, 2016.
7. Riley, David, and Kenny Hunt. Computational Thinking for the Modern Problem Solver. CRC Press, 2014.
8. Rouse, Margaret Z. Information Technology for Management. Wiley, 2020.
9. Evans, Alan, Kendall Martin, and Mary Anne Poatsy. Technology in Action: Introductory. 15th ed., Pearson, 2019.
10. NPTEL. Computer Science and Engineering, https://nptel.ac.in/course.html
11. GeeksforGeeks. Computer Science Portal for Geeks, https://www.geeksforgeeks.org/
12. Coursera. Computer Science Courses, https://www.coursera.org/browse/computer-science
13. TutorialsPoint. Computer Programming and IT Tutorials, https://www.tutorialspoint.com/index.htm
14. https://nptel.ac.in/courses/106106092

# Glocal College of Education
# Ph.D. Course Work in Education- Elective

| Paper Name: Advances of Education | Paper Code: PHD-104/ED (I) | Credits: 4 (4-0-0) |
|---|---|---|
| **Evaluation (Maximum Marks = 100)** | **Internal = 30** | **External = 70** |

**Course Objectives**

1. To To provide critical insights into recent developments, theories, and practices in the field of education.
2. To explore emerging trends, innovations, and interdisciplinary approaches impacting education systems globally and in India.
3. To equip research scholars with the knowledge needed to analyze and contribute to educational reform and policy.

| Unit | Contents | Lectures |
|---|---|---|
| **I** | Recent trends in educational philosophy: constructivism, critical pedagogy, postmodernism, Education for Sustainable Development and global citizenship, Humanistic, existentialist, and transformative learning theories, Multicultural and inclusive education philosophies. | **10** |
| **II** | National Education Policy (NEP) 2020: vision, challenges, and implementation, Governance and regulatory bodies in Indian education, Privatization, public-private partnerships, and global ranking systems, International organizations in education: UNESCO, OECD, World Bank. | **10** |
| **III** | Outcome-based education (OBE) and competency-based learning, ICT and blended learning models, Experiential and inquiry-based pedagogies Continuous and comprehensive evaluation; formative vs. summative assessment. | **10** |
| **IV** | Integration of AI, AR/VR, and data analytics in education, MOOCs, e-learning platforms, and open educational resources (OER), Digital divide and equity in access to education, Ethical and legal aspects of educational technology. | **15** |
| **V** | Interdisciplinary research in education, educational leadership, management, and policy research, Mental health, well-being, and socio-emotional learning, Gender, caste, and inclusive practices in education; Future of work and re-skilling through education. | **15** |
| | **Total** | **60** |

**Suggested Readings**


1. Freire, Paulo. Pedagogy of the Oppressed. Translated by Myra Bergman Ramos, 30th Anniversary ed., Bloomsbury Academic, 2000.
2. Ministry of Education, Government of India. National Education Policy 2020. Government of India, 2020. https://www.education.gov.in/en/nep/about-nep
3. Bhatia, H. R. Foundations of Education. Atlantic Publishers & Distributors, 2020.
4. Varghese, N. V. Governance Reforms in Higher Education: A Study of Institutional Autonomy in Asian Countries. Sage Publications India, 2013.
5. Kumari, Sarita. Contemporary Issues in Education. APH Publishing Corporation, 2012.
6. Dewey, John. Democracy and Education: An Introduction to the Philosophy of Education. Free Press, 1997.
7. Bruner, Jerome S. The Process of Education. Harvard University Press, 1977.
8. Goodlad, John I. Curriculum Inquiry: The Study of Curriculum Practice. McGraw-Hill, 1979.
9. Yelland, Nicola, editor. Critical Issues in Early Childhood Education. Open University Press, 2005.
10. https://onlinecourses.nptel.ac.in/noc22_hs61/preview

# Glocal College of Education
# Ph.D. Course Work in Education- Elective

| Paper Name: Educational Technology | Paper Code: PHD-104/ED(II) | Credits: 4 (4-0-0) |
|---|---|---|
| **Evaluation (Maximum Marks = 100)** | **Internal = 30** | **External = 70** |

**Course Objectives**

1. To provide an in-depth understanding of the theoretical foundations, tools, and applications of educational technology in teaching and research.
2. To enable scholars to critically analyze the role of technology in transforming pedagogy, curriculum design, and learning outcomes.
3. To equip researchers with practical skills for integrating digital tools in educational research and innovation.

| Unit | Contents | Lectures |
|---|---|---|
| **I** | Concept, scope, and evolution of educational technology, Theories of learning and their technological implications, Systems approach to instruction, Trends in educational technology: from print to digital. | **10** |
| **II** | Models of instructional design: ADDIE, ASSURE, Dick & Carey, Multimedia learning and cognitive load theory, Designing e-content and MOOCs, Synchronous vs. asynchronous learning environments. | **10** |
| **III** | Learning Management Systems (LMS): Moodle, Google Classroom, etc., Use of Open Educational Resources, Artificial Intelligence, AR/VR, and gamification in education, Educational apps. | **10** |
| **IV** | Quantitative and qualitative tools for data collection and analysis, Plagiarism detection tools and referencing software (Zotero, Mendeley), Online survey platforms and data visualization tools, Assessment and evaluation through ICT tools. | **15** |
| **V** | ICT policy in education: Indian and global perspectives, Legal and ethical issues: data privacy, digital divide, accessibility, NEP 2020 and digital initiatives in India (DIKSHA, SWAYAM, NISHTHA), Future of learning: blended learning, flipped classrooms, smart classrooms. | **15** |
| | **Total** | **60** |

**Suggested Readings**


1. Mukhopadhyay, M. Educational Technology: Knowledge Assessment and Management. Shipra Publications, 2012.
2. Kumar, A. L. Educational Technology and Conceptual Perspectives. 2nd ed., New Delhi, Anmol Publications, 2010.
3. Spector, J. Michael, et al., editors. Handbook of Research on Educational Communications and Technology. 5th ed., Springer, 2020.

4. Reiser, Robert A., and John V. Dempsey, editors. Trends and Issues in Instructional Design and Technology. 4th ed., Pearson, 2017.
5. Bates, A. W. (Tony). Teaching in a Digital Age: Guidelines for Designing Teaching and Learning. 2nd ed., Tony Bates Associates Ltd., 2019. Open Textbook. https://opentextbc.ca/teachinginadigitalage/
6. Mishra, Sanjaya, editor. E-learning in India. UGC-DEB & CEMCA, 2012.
7. Siemens, George, and Stephen Downes. Connectivism and Digital Learning: Theory and Practice. eLearning Books, 2014.

# Glocal College of Education
# Ph.D. Course Work in Education- Elective

| Paper Name: Educational Assessment and Evaluation | Paper Code: PHD-104/ED(III) | Credits: 4 (4-0-0) |
|---|---|---|
| Evaluation (Maximum Marks = 100) | Internal = 30 | External = 70 |

**Course Objectives**

1. To develop an in-depth understanding of the principles, methods, and tools of educational assessment and evaluation.
2. To equip scholars with skills for designing, implementing, and analyzing assessment systems in various educational contexts.
3. To critically examine contemporary issues, innovations, and research in educational evaluation, including policies and practices.

| Unit | Contents | Lectures |
|---|---|---|
| I | Assessment, measurement, evaluation: definitions and interrelationships, Types of evaluation: formative, summative, diagnostic, prognostic, Characteristics of a good assessment tool: validity, reliability, objectivity, usability, Norm-referenced and criterion-referenced tests. | 10 |
| II | Achievement tests, aptitude tests, attitude scales, rating scales, Checklists, anecdotal records, observation techniques, Self-assessment and peer assessment, Use of rubrics and scoring guides. | 10 |
| III | Steps in test construction: planning, writing items, pilot testing, item analysis, Objective and subjective test items: merits and limitations, Test standardization: norms, scaling, and equating, Use of statistical techniques in educational assessment (mean, SD, correlation, T-test, etc.). | 10 |
| IV | Online and computer-based assessment, Adaptive testing and AI-enabled evaluation, Portfolios and performance-based assessment, Learning analytics and big data in educational evaluation. | 15 |
| V | National Education Policy (NEP) 2020: assessment reforms, Examination stress, fairness, and inclusivity in assessment, Ethical and legal concerns in educational assessment | 15 |
| | **Total** | 60 |

**Suggested Readings**


1. Ebel, Robert L., and David A. Frisbie. Essentials of Educational Measurement. Prentice Hall, 1991.
2. Nitko, Anthony J., and Susan M. Brookhart. Educational Assessment of Students. Pearson, 2014.
3. Thorndike, Robert M., and Tracy Thorndike-Christ. Measurement and Evaluation in Psychology and Education. Pearson, 2010.
4. Gronlund, Norman E. Measurement and Evaluation in Teaching. Macmillan, 1985.

5. Linn, Robert L., and M. David Miller. Measurement and Assessment in Teaching. Pearson, 2005.
6. Popham, W. James. Classroom Assessment: What Teachers Need to Know. Pearson, 2017.
7. National Council of Educational Research and Training (NCERT). Learning Outcomes at the Elementary Stage. NCERT, 2017.
8. National Education Policy 2020. Government of India, Ministry of Education, 2020. https://www.education.gov.in/en/nep/about-nep

# Glocal Law School
# Ph.D. Course Work in Law- Elective

| Paper Name: Introduction to Pedagogy and Teaching | Paper Code: PHD-104/ED(IV) | Credits: 4 (4-0-0) |
|---|---|---|
| **Evaluation (Maximum Marks = 100)** | **Internal = 30** | **External = 70** |

**Course Objectives**

1. To equip research scholars with foundational knowledge of pedagogy, instructional methods, and learner psychology.
2. To develop practical skills in curriculum design, lesson planning, and student assessment in higher education.
3. To foster reflective and inclusive teaching practices aligned with diverse learner needs and educational goals.

| Unit | Contents | Lectures |
|---|---|---|
| **I** | Meaning and scope of pedagogy, Key learning theories: Behaviorism, Constructivism, Cognitivism, Connectivism, Principles of adult learning, Learner diversity and inclusive education. | **10** |
| **II** | Curriculum design: objectives, content selection, and sequencing, Bloom's taxonomy and outcome-based education (OBE), Designing course outlines and lesson plans, Integrating values, ethics, and interdisciplinary approaches. | **10** |
| **III** | Lecture, discussion, case-based, problem-based, and experiential methods, Blended learning, flipped classrooms, ICT tools and Learning Management Systems, multimedia and Open Resources. | **10** |
| **IV** | Types of assessments: formative, summative, diagnostic, Designing effective assessments and rubrics, Feedback mechanisms and reflective teaching, Academic integrity and plagiarism detection. | **15** |
| **V** | Classroom management and student engagement, Ethics in teaching and role of teacher as mentor, Reflective practice and peer observation, Preparing teaching portfolios and self-evaluation. | **15** |
| | **Total** | **60** |

## Suggested Readings


1. Joyce, Bruce, Marsha Weil, and Emily Calhoun. Models of Teaching. 9th ed., Pearson, 2014.
2. Biggs, John, and Catherine Tang. Teaching for Quality Learning at University. 4th ed., Open University Press, 2011.
3. Ramsden, Paul. Learning to Teach in Higher Education. 2nd ed., Routledge, 2003.
4. Brookfield, Stephen D. The Skillful Teacher: On Technique, Trust, and Responsiveness in the Classroom. 3rd ed., Jossey-Bass, 2015.
5. https://onlinecourses.nptel.ac.in/noc22_ge07/preview
6. https://connect.springerpub.com/content/book/978-0-8261-4057-9/chapter/ch01