

CENTRAL UNIVERSITY OF PUNJAB



Ph.D. (Library and Information Sciences)

2021

Department of Library and Information Sciences

Graduate Attributes

Graduates shall have enhanced skills in varied aspects of conducting research in different cultural settings. Graduates shall be competent in analysing problems related to library and information science. Graduates shall have a scientific attitude in examining research problems and conducting research for their solutions at local and global level. And, graduates shall contribute significantly in knowledge economy of the nation.

Course Structure

Course Code	Course Title	Course Type	Credit Distribution			
			L	T	P	CR
LIS.706	Research Methodology	Core Course	4	0	0	4
LIS.708	Research Competencies (Practical)	Skill Based	0	0	4	2
LIS.709	E-research Tools and Techniques	Skill Based	2	0	0	2
LIS.751	Research and Publication Ethics	Discipline	2	0	0	2
LIS.752	Teaching Assistantship		0	0	2	1
UNI.753	Curriculum, Pedagogy and Evaluation		1	0	0	1
	Total		8	0	4	12

Course Title: RESEARCH METHODOLOGY
Course Code: LIS.706

L	T	P	CR
4	0	0	4

Learning Outcomes

After completion of the course the students will be able to

- Examine the different approaches to research and selecting an appropriate sampling design for a research study
- Documenting and disseminating research findings in Library and Information Science
- Apply the knowledge of intellectual property rights in the field of research

Course Content

Unit I: Research Approaches

16 hours

- Research approaches: Logical positivism, phenomenology, ethnography, and triangulation, quantitative, qualitative; types of research and their applications: according to purpose and method
- Historical Research: Primary and secondary sources of information, external and internal criticism of the source
- Descriptive Research: Assessment studies, evaluation studies, ex-post facto studies, replication and meta-analysis.
- Experimental research: Types of experimental research designs: designing and developing appropriate experimental designs for research problems.

Unit II: Quantitative and Qualitative Research methods and Tools

16 hours

1. Quantitative research methods and tools: Selection, types and application
2. Qualitative research methods and tools: Selection, types and application
3. Mixed Method: Meaning and characteristics, designs and their application

Unit II: Sampling Techniques

12 hours

1. Process to select a problem and review of related literature
2. Sampling design: Selecting appropriate probability and non-probability sampling techniques for qualitative and quantitative research problems

Unit IV: Data Analysis and Intellectual Property Rights**16 hours**

1. Data analysis in quantitative & qualitative research: Content analysis, inductive, logical
2. Intellectual Property, intellectual property protection (IPP) and intellectual property rights (IPR), WIPO (World Intellectual Property Organization)

Transaction Mode: Lectures, PPT, Collective thinking, YouTube, Discussion**Suggested Readings**

1. Best J.W. (1999). *Research in Education*. New Delhi: Prentice Hall of India Pvt. Ltd.
2. Bogdon, R., & Biklen, S. K. (2008). *Qualitative Research for Education: An Introduction to Theories and Practice*. New Delhi: PHI learning
3. Borg, W.R., & Gall, M.D. (1983). *Educational Research – An Introduction*. New York: Longman, Inc.
4. Chandra, S. S., & Sharma, R.K. (2010). *Research in education*. New Delhi: Atlantic Publishers and Distributers (P) LTD.
5. Christensen, L. (2007). *Experimental Methodology*. Boston: Allyn& Bacon.
6. Creswell, J. W. (2015). *Educational Research: Planning, Conducting and Evaluating Quantitative and qualitative Research*. Boston: Pearson Publications.
7. Curtis, W., Murphy, M., & Shields, S. (2013). *Research and Education*. New York & London: Routledge
8. EfratEfron, S., & Ravid, R. (2013). *Action Research in Education: A Practical Guide*, New York: Routledge
9. Egbert, J., & Sanden, S. (2013). *Foundations of Education Research: Understanding Theoretical Components*. New York: Routledge.
10. Fraenkel, J.R., & Wallen, N.E. (1996). *How to Design and Evaluate Research in Education*. New York: McGraw Hill.
11. Gordon, P. (1996). *A Guide to Educational Research*. New York: Routledge
12. Kaul, L. (1984). *Methodology of Educational Research*. New Delhi: Vikas Publications.
13. Kilkpatrick, D.L. (2005). *Evaluating training Programmes: The four Levels*. San Francisco: Brrett-Kochler.
14. Kress, T. (2013). *Using Critical Research for Educational and Social Change*. New York & London: Routledge.

15. Lauren, B., Little, T. D., & Card, N. A. (2012). *Developmental Research Methods*. New York: The Guilford Press.
16. Martella, R. C., Nelson, J. R., Morgan, R. L., & Martella, N. E. (2013). *Understanding and Interpreting Educational Research*, New York: Routledge Guilford Press
17. Maykut, P., & Morehouse, R. (1994). *Beginning Qualitative Research- A Philosophic and Practical Guide*. London: The Falmer Press.
18. Miller, S. A. (2007). *Developmental Research Methods*. New Delhi: Sage Publications.
19. Opie, C. (2004). *Doing Educational Research: A Guide for First time researchers*. New Delhi: Vistar Publications.
20. Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. C.A: Sage Publications.
21. Petscher, Y., Schatschneider, C., & Compton, D. L. (2013). *Applied Quantitative Analysis in Education and the Social Sciences*. New York & London: Routledge
22. Reason, P., & Bradbury, H. (Eds) (2006). *Handbook of action research: Concise paperback edition*. CA: Sage Publications.
23. Scott, D., & Usher, R. (1996). *Understanding Educational Research*. New York: Routledge.
24. Tolmie, A., McAteer, E., & Muijs, D. (2012). *Quantitative Methods in Educational and Social Research Using SPSS*. Maidenhead: Open University Press
25. Wellington, J. (2015). *Educational Research*. New Delhi: Bloomsbury Academic.
26. Weirisma. W., & Stephen G. (2009). *Research methods in Education*. New York: Pearson Education

Web-resources

- <https://epgp.inflibnet.ac.in/>

L	T	P	CR
0	0	4	2

Course Title: RESEARCH COMPETENCIES

Course Code: LIS.708

Learning outcomes:

After completion of the course the students will be able to

- Develop skill set for identifying research gaps and articulating research problems.
- Apply research methodologies based on need and circumstances.
- Synthesize information from diverse sources.

Course Content

- Identify research gaps on a selected research area
- Summarize the findings of different research studies
- Formulate research questions, objectives and hypothesis
- Select appropriate approach and design for different research topics
- Develop tools for research and standardise them
- Ascertain the methods involved in data collection
- Analyse quantitative and quantitative data using appropriate techniques
- Conduct action research

Evaluation Criteria

Continuous Assessment: -50 Marks

- Attendance: 10
- Practical Record: 15
- Skill Assessment (Analysis of articles, abstract writing, preparing test items etc.):25

End Term Assessment: -50 Marks

- Performance: 30
- Viva Voce: 20

Evaluation will be done by course coordinator and two members from the department, nominated by HOD

Suggested Readings

1. Anastasi, A. & Urbina, S. (2014). *Psychological Testing*. New Delhi: PHI learning Pvt. Ltd.
2. Gregory, R.J. (2014). *Psychological Testing: History, Principles and Applications*. New Delhi: Dorling Kindersley Pvt. Ltd.

3. Kline, P. (2015). *A Handbook of Test Construction: Introduction to Psychometric Design*. NY: Routledge.
4. Miller, Lovler., & McIntire. (2013). *Psychological Testing: A Practical Approach*. New Delhi: SAGE Publication India Pvt. Ltd.
5. Bel, J. (2004). *Doing Your Research Project*. Open University Press: Berkshire

Suggested Websites

http://library.victoria.ac.nz/ebooks/APA_APASStyleGuide.pdf

IQAC

Course Title: E-RESEARCH TOOLS AND TECHNIQUES
Course Code: LIS.709

L	T	P	CR
2	0	0	2

Learning Outcomes

After the Completion of course, the students will be able to:

- Develop skills for creating a e-research.
- Explore the types of e-resources user studies and user education.
- Analyse various metric studies pertaining to LIS
- Evaluate the indicators used for assessing research impact.
- Create citation styles using open source reference management systems.

Course Contents

Unit I: E-research and Electronic resources

8 hours

- E-research –concept, advantages, limitations
- Trends in E-research
- E-reference sources: Indexing and Abstracting databases, Shodganga, NDLTD, E-encyclopedias, citation databases etc.

Unit II: E-research Tools

8 hours

- Online survey tools
- Visualizing data tools
- Search engines- Academic search engines, general search engines, metasearch engine
- Search strategies- search operators, alerting tools, RSS feeds etc.

Unit III: Metric Studies and Statistical Tools

8 hours

- Calculation of Impact Factor for journals, h-index and g-index for authors and institutions, SCImago Journal Rank (SJR) indicator
- Analyzing parametric and non-parametric data using SPSS.

Unit IV: Academic Social Networking Sites and Reference Management Systems

6 hours

- Creating Google Scholar Profile, ORCID ID, ResearchGate and Microsoft Academic Search.
- Creating citation styles using Mendeley and Zotero reference management system.

Transaction Mode: Lectures, PPT, Collective thinking, YouTube, Discussion

Suggested Readings

1. Anandarajan, M. (Ed.). (2010). *E-research collaboration: Theory, techniques and challenges*. Springer Science & Business Media.
2. Anderson, T. & Kanuka, H. (2003). *E-research: methods, strategies, and issues*, Allyn and Bacon
3. Jankowski, N. W. (Ed.). (2010). *E-Research: Transformation in scholarly practice*. Routledge.
4. Bryman, A. (2018). *Social Research Methods*. Oxford Publication, London
5. Glänzel, W., Moed, H. F., Schmoch, U., & Thelwall, M. (Eds.). (2019). *Springer Handbook of Science and Technology Indicators*. Springer Nature.
6. Neuman, W.L. (2010). *Social Research Methods: Qualitative and Quantitative Approaches*.
7. Pears, R., & Shields, G. J. (2019). *Cite them right: the essential referencing guide*. Macmillan International Higher Education.

Course Code: LIS.751

Course Title: Research and Publication Ethics

Total Hours: 30

I	7	I	Credits
2	0	0	2

Unit I Philosophy and Ethics

3 hours

- Introduction to Philosophy : definition, nature and scope, content, branches
- Ethics : definition, moral philosophy, nature of moral judgements and reactions

Unit II Scientific Conduct

5 hours

- Ethics with respect to science and research
- Intellectual honesty and research integrity
- Scientific misconducts : Falsification, Fabrication, and Plagiarism (FFP)
- Redundant publications : duplicate and overlapping publications, salami slicing
- Selective reporting and misrepresentation of data

Unit III: Publication Ethics
hours

7

- Publication ethics : definition, introduction and importance
- Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.
- Conflicts of interest
- Publication misconduct : definition, concept, problems that lead to unethical behaviour and vice versa, types
- Violation of publication ethics, authorship and contributor ship
- Identification of publication misconduct, complaints and appeals
- Predatory publishers and journals

Unit IV Open Access publishing

4 hours

- Open access publications and initiatives
- SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
- Software tool to identify predatory publication developed by SPPU

- Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer, Journal Suggester etc.

Unit V Publication Misconduct**4 hours**

- Group Discussions: Subject specific ethical issues, FFP, authorship; conflicts of interest; complaints and appeals: examples and fraud from India and abroad
- Software tools: Use of plagiarism software like Turnitin, Urkund and other open source software tools

Unit IV Databases and Research Metrics**7 hours**

- Databases: Indexing databases; Citation database: Web of Science, Scopus etc.
- Research Metrics: Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score; Metrics : h-index, g-index, i10 index, almetrics

Course Code: LIS.752**Course Title: TEACHING ASSISTANTSHIP**

L	T	P	Credit
0	0	2	1

Total Hours: 30**Learning Outcome:**

At the end of this skill development course, the scholars shall be able to

1. familiarize themselves with the pedagogical practices of effective class room delivery and knowledge evaluation system
2. manage large and small classes using appropriate pedagogical techniques for different types of content

Activities and Evaluation:

- The scholars shall attend Master degree classes of his/her supervisor to observe the various transaction modes that the supervisor follows in the class room delivery or transaction process one period per week.
- The scholars shall be assigned one period per week under the direct supervision of his/her supervisor to teach the Master degree students adopting appropriate teaching strategy(s).
- The scholars shall be involved in examination and evaluation system of the Master degree students such as preparation of questions, conduct of examination and preparation of results under the direction of the supervisor.

- At the end of the semester, the supervisor shall conduct an examination of teaching skills learned by the scholar as per the following evaluation criteria:
- The scholars shall be given a topic relevant to the Master degree course of the current semester as his/her specialization to prepare lessons and deliver in the class room before the master degree students for one hour (45 minutes teaching + 15 minutes interaction).
- The scholars shall be evaluated for a total of 50 marks comprising content knowledge (10 marks), explanation and demonstration skills (10 marks), communication skills (10 marks), teaching techniques employed (10 marks), and classroom interactions (10).

Course Code: UNI.753

Course Title: CURRICULUM, PEDAGOGY AND EVALUATION

L	T	P	Credit
1	0	0	1

Learning outcomes:

Total Hours: 15

After completion of the course, scholars shall be able to:

- analyze the principles and bases of curriculum design and development
- examine the processes involved in curriculum development
- develop the skills of adopting innovative pedagogies and conducting students' assessment
- develop curriculum of a specific course/programme

Course Content

Unit I Bases and Principles of Curriculum

4 hours

1. Curriculum: Concept and Principles of curriculum development, Foundations of Curriculum Development.
2. Types of Curriculum Designs- Subject centered, learner centered, experience centered and core curriculum. Designing local, national, regional and global specific curriculum. Choice Based Credit System and its implementation.

Unit II Curriculum Development

4 hours

1. Process of Curriculum Development: Formulation of graduate attributes, course/learning outcomes, content selection, organization of content and learning experiences, transaction process.

2. Comparison among Interdisciplinary, multidisciplinary and trans-disciplinary approaches to curriculum.

Unit III Curriculum and Pedagogy

3 hours

1. Conceptual understanding of Pedagogy.
2. Pedagogies: Peeragogy, Cybergogy and Heutagogy with special emphasis on Blended learning, Flipped learning, Dialogue, cooperative and collaborative learning
3. Three e- techniques: Moodle, Edmodo, Google classroom

Unit IV Learners' Assessment

4 hours

1. Assessment Preparation: Concept, purpose, and principles of preparing objective and subjective questions.
2. Conducting Assessment: Modes of conducting assessment – offline and online; use of ICT in conducting assessments.
3. Evaluation: Formative and Summative assessments, Outcome based assessment, and scoring criteria.

Transaction Mode

Lecture, dialogue, peer group discussion, workshop

Evaluation criteria

There shall be an end term evaluation of the course for 50 marks for duration of 2 hours. The course coordinator shall conduct the evaluation.

Suggested Readings

- Allyn, B., Beane, J. A., Conrad, E. P., & Samuel J. A., (1986). Curriculum Planning and Development. Boston: Allyn & Bacon.
- Brady, L. (1995). Curriculum Development. Prentice Hall: Delhi. National Council of Educational Research and Training.
- Deng, Z. (2007). Knowing the subject matter of science curriculum, Journal of Curriculum Studies, 39(5), 503-535. <https://doi.org/10.1080/00220270701305362>
- Gronlund, N. E. & Linn, R. L. (2003). Measurement and Assessment in teaching.
- Singapore: Pearson Education
- McNeil, J. D. (1990). Curriculum: A Comprehensive Introduction, London: Scott, Foreman/Little
- Nehru, R. S. S. (2015). Principles of Curriculum. New Delhi: APH Publishing Corporation.
- Oliva, P. F. (2001). Developing the curriculum (Fifth Ed.). New York, NY: Longman
- Stein, J. and Graham, C. (2014). Essentials for Blended Learning: A Standards-Based Guide. New York, NY: Routledge.

Web Resources

- https://www.westernsydney.edu.au/_data/assets/pdf_file/0004/46709/5/Fundamentals_of_Blended_Learning.pdf
- <https://www.uhd.edu/academics/university-college/centers-offices/teaching-learningexcellence/Pages/Principles-of-a-Flipped-Classroom.aspx>
- <http://leerwegdialoog.nl/wp-content/uploads/2018/06/180621-Article-The-BasicPrinciples-of-Dialogue-by-Renate-van-der-Veen-and-Olga-Plokhooij.pdf>

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