

Branch Name:	Bachelor of Computer Application (BCA)
Program Code:	CS101
Course Title:	Grant-In-Aid For Research Publication & Monitoring
Course Code:	18-CAM408-4C
Pre-requisite Course:	Basics of Research Methodology, Fundamentals of Computer Applications and Data Analysis , Basic knowledge of Academic Writing and Documentation

Course Objective (CO):

This course is intended to make the students:

- To understand the concept and importance of research funding (Grant-in-Aid) in academic research.
- To identify various national and international funding agencies supporting research publications.
- To learn the process of writing and submitting research grant proposals.
- To understand financial management and utilization of research grants.
- To develop skills for monitoring research projects and preparing progress reports for funding agencies.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
3	--	2	4	50	25	--	25	100

Course Contents:

Sr. No	Topics	Total Hours	Weightage (%)
1.	Introduction to Research Grants: Concept of research funding and grants, Importance of research funding in academia, Types of grants: Seed grants, project grants, and travel grants, Overview of national and international funding agencies, Eligibility criteria and application process for research grants, Benefits and impact of research grants on academic and institutional development.	09	20
2.	Funding Agencies and Opportunities: Government funding agencies in India Industry funded research projects, International research funding organizations Searching and identifying research grant opportunities, Eligibility criteria and application procedures for research grants, Types of research funding schemes such as fellowships, project grants, and travel grants.	09	20
3.	Research Proposal Writing: Components of research proposal, Writing problem statement and objectives, Budget planning and justification, Proposal submission process, Literature review and methodology design in research proposals, Evaluation criteria and review process of research proposals.	09	20
4.	Research Proposal Writing : Research publication process , Types of research publications , Avoiding plagiarism and maintaining academic integrity , Selection of journals and indexing databases , Peer review process in research publications, Open access journals and impact factor in research publishing.	09	20
5.	Grant Monitoring and Reporting: Project implementation and monitoring, Progress reports and documentation, Financial utilization and compliance, Research dissemination and impact assessment	09	20

Course Learning Outcomes (CLO):

At the end of this course, the student would be able

- CLO1: Understand the concept and importance of research grants and funding agencies.
- CLO2: Identify national and international research funding opportunities.
- CLO3: Develop skills to prepare research proposals and grant applications.
- CLO4: Understand research publication process and ethical practices.
- CLO5: Monitor research projects and prepare grant utilization reports.

List of Text Book:

1. Research Methodology: Methods and Techniques – C. R. Kothari and Gaurav Garg, New Age International Publishers
2. Research Methodology: A Step-by-Step Guide for Beginners – Ranjit Kumar, SAGE Publications.
3. The Craft of Research – Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams, University of Chicago Press.
4. Research Methodology: Techniques and Trends – Umesh Kumar B. Dubey and D. P. Kothari, Chapman & Hall / CRC Press.
5. Writing Your Journal Article in Twelve Weeks – Wendy Laura Belcher, University of Chicago Press.

List of Reference Book:

1. Research Methodology and Scientific Writing – C. George Thomas, Springer Publications
2. The Craft of Research – Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams, University of Chicago Press.
3. A Manual for Writers of Research Papers, Theses, and Dissertations – Kate L. Turabian, University of Chicago Press.
4. MLA Handbook – Modern Language Association, MLA Publications.
5. The Chicago Manual of Style – University of Chicago Press.

E-Resource / Web Links:

- Turnitin Plagiarism Detection Tool – <https://www.turnitin.com>
- University Grants Commission – <https://www.ugc.gov.in>
- Department of Science and Technology – <https://dst.gov.in>
- National Digital Library of India – <https://ndl.iitkgp.ac.in>
- IEEE Digital Library – <https://ieeexplore.ieee.org>
- Springer Research Database – <https://link.springer.com>
- Elsevier ScienceDirect – <https://www.sciencedirect.com>

List of Experiments:

Note: The experiment list provided beneath is for reference only. The course teacher may change/ Formulate it as per his/her methodology and requirement.

Practical List

- 1) Study research funding agencies like UGC .
- 2) Find research schemes of DST and prepare a small report.
- 3) Search research grants for computer science projects from national or international agencies.
- 4) Write a simple research problem statement and objectives.
- 5) Do a literature review on any selected research topic using online journals.
- 6) Prepare a simple research proposal format (Introduction, Objectives, and Methodology).
- 7) Make a small budget plan for a research project.
- 8) List some reputed journals for computer science publications.
- 9) Check plagiarism of a sample document using a plagiarism tool.
- 10) Prepare a progress report format for a research project.
- 11) Study documents related to research grant utilization and reporting.
- 12) Give a seminar or presentation on a research funding scheme or proposal.

Mapping of CLO with PO and PSO

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO2	PSO 3
CLO1		H		M	H					M			L		
CLO2	H			H	H		M			M	M		M	L	H
CLO3		M		H	M								M		
CLO4	H			H									M		H
CLO5			H	H	H	M	M	M		H		M	M	H	
CLO6			H	H	H	M	M	M		H		M	M	H	

H: High, M: Medium, L: Low