

UNIVERSITY OF KERALA

Four Year Undergraduate Programme (FYUGP) — B.Com

Stream: Business Information System

PROJECT METHODOLOGY

Discipline	COMMERCE
Course Code	UK5DSECOM307
Course Title	Project Methodology
Type of Course	Discipline Specific Elective (DSE)
Semester	V
Academic Level	300 – 399
Course Details	4 Credits Lecture: 3 hrs/week Tutorial: – Practical: 2 hrs/week Total: 5 hrs/week (75 Hours)
Pre-requisites	Basic knowledge of project work and the fundamentals of office automation and spreadsheets.
Course Summary	This course enables learners to understand research and project methodology and to apply it in academic and professional project work. It develops the ability to identify research problems, design data-collection tools, analyse and interpret data, evaluate the quality of project reports, and design a complete research proposal.

Detailed Syllabus

Unit	Content	Hrs
Module I: Overview of Project		15
1	Meaning and Types of Projects Meaning and purpose of a project; significance of projects in academic and professional contexts; project vs research; scope and importance of project work; types of projects: basic, applied, evaluation and action research.	5
2	Scientific Thinking and Literature Review Nature and importance of scientific thinking; types of reasoning — inductive, deductive and abductive; role of existing knowledge; importance of literature review; identifying research gaps; using literature to refine research problems.	4
Practicum • Identification of commerce-related project areas; literature search; drafting project titles; preparation of problem statements.		6
Suggested Activities • Group discussion: how does scientific thinking differ from everyday thinking? Use a commerce-related example. • Seminar: the distinction between academic research projects and professional consulting projects.		
Module II: Research Methods and Data Collection		15
3	Research Approaches and Measurement	4

Unit	Content	Hrs
	Qualitative and Quantitative Research Methods: approaches to research; concept and levels of measurement.	
4	Data Collection and Survey Design Methods of data collection; sampling concepts and techniques; sampling errors and bias; designing questionnaires and interview schedules; creating online surveys using Google Forms.	5
Practicum • Designing a questionnaire using Google Forms; collecting sample responses; exporting data to Google Sheets.		6
Suggested Activities • Evaluate the strengths and limitations of a questionnaire provided by the faculty for a peer-review exercise. • Case study: identify sampling bias in a given research scenario and suggest improvements.		
Module III: Data Analysis and Interpretation		15
5	Univariate and Bivariate Analysis Univariate Analysis: frequency tables, percentages, bar charts and pie charts. Bivariate Analysis: cross-tabulation, chi-square test, testing hypothesis of association using a spreadsheet.	5
6	Data Interpretation and Referencing Principles of data interpretation; inserting tables and charts in MS Word; referencing styles.	4
Practicum • Data entry using spreadsheet tools; preparation of frequency tables, charts, graphs and interpretation of results.		6
Suggested Activities • Prepare a univariate and bivariate analysis report from a sample commerce dataset provided by the faculty. • Group discussion: common errors in data interpretation and how they mislead conclusions.		
Module IV: Project Documentation and Report Writing		15
7	Structure of Project Report and Literature Review Title page and abstract; overview of the problem statement; scope and domain of the study; review related to the problem domain; identification of technical and research gaps.	4
8	Project Planning, Framework and Referencing Motivation for the problem statement; challenges and expected outcomes; overall framework, implementation platform; bibliography and citation standards.	5
Practicum • Drafting project report chapters; formulating research questions and objectives; developing a conceptual framework; preparing the methodology section and a project proposal with research methodology.		6
Suggested Activities • Draft an abstract and problem statement for a mock project assigned by the faculty. • Seminar: APA and IEEE citation styles — when to use each and common referencing errors.		
Module V: Elements of Project [CCA Only]		15
9	Core Concepts and Theoretical Framework	5

Unit	Content	Hrs
	Concepts and constructs; theoretical and operational definitions; theory and models; relationship between theory and research.	
10	Research Planning and Design Formulation of research questions and objectives; project design and research methodology.	4
	Practicum • Creating conceptual models and research design diagrams using digital tools (MS PowerPoint, Canva, Lucidchart or Draw.io); generating citations and bibliography using reference management software (Mendeley / Zotero); preparing a research proposal presentation.	6
	Suggested Activities • Present a two-minute elevator pitch for a proposed commerce research project to the class. • Group discussion: what are the ethical responsibilities of a student researcher?	
Total Instructional Hours		75

References

Text Books

- Kothari, C. R. – Research Methodology: Methods and Techniques (New Age International).
- Wilkinson, T. S., & Bhandarkar, P. L. – Methodology and Techniques of Social Research (Himalaya).

Standard Reference Books

- Dawson, C. – Projects in Computing and Information Systems (Addison-Wesley).
- Lewis, J. P. – Fundamentals of Project Management, 3rd Edition (AMACOM).
- Heagney, J. – Fundamentals of Project Management, 5th Edition (AMACOM).
- Roberts, P. – Guide to Project Management, 2nd Edition (Profile Books).
- Rakos, J. – Practical Guide to Project Management Documentation (Wiley).

Journals, Reports and Web Resources

- Mendeley – Reference management and research tool – <https://www.mendeley.com/>
- Zotero – Free, open-source reference manager – <https://www.zotero.org/>
- Indian Journal of Commerce – <https://www.indianjournalofcommerce.com/>

Course Outcomes (COs)

No.	Upon completion of the course the graduate will be able to:	Cognitive Level	Module	PSO Addressed	Knowledge
CO1	Explain the concept, types and significance of project work and research in academic and professional contexts.	U	M I	PSO13	F, C
CO2	Apply scientific thinking and literature-review techniques to identify a research problem and define objectives.	Ap	M II	PSO13	P
CO3	Design appropriate data-collection tools using qualitative and quantitative research methods.	C	M II	PSO6, PSO13	P, M
CO4	Analyse and interpret research data using spreadsheet-based	An	M III	PSO6, PSO13	C, P

No.	Upon completion of the course the graduate will be able to:	Cognitive Level	Module	PSO Addressed	Knowledge
	statistical and visualisation techniques.				
CO5	Evaluate the quality and structure of project reports against documentation and referencing standards.	E	M IV	PSO6, PSO13	C, P
CO6	Design a complete research proposal, including research questions, a conceptual framework and a presentation of findings.	C	M V	PSO13	P, M
Cognitive Levels: R – Remember U – Understand Ap – Apply An – Analyse E – Evaluate C – Create Knowledge: F – Factual C – Conceptual P – Procedural M – Metacognitive					

CO – PO/PSO, Cognitive Level and Knowledge Category

Credits: 3 : 0 : 1 (Lecture : Tutorial : Practical)

CO No.	CO	PO	PSO	Cognitive Level	Knowledge	Module	L / T	P
CO1	Explain the concept, types and significance of project work and research in academic and professional contexts.	1,2,6	13	U	F, C	M I	L	–
CO2	Apply scientific thinking and literature-review techniques to identify a research problem and define objectives.	1,2,6	13	Ap	P	M II	L	P
CO3	Design appropriate data-collection tools using qualitative and quantitative research methods.	1,2,6,8	6,13	C	P, M	M II	L	P
CO4	Analyse and interpret research data using spreadsheet-based statistical and visualisation techniques.	1,2,6	6,13	An	C, P	M III	L	P
CO5	Evaluate the quality and structure of project reports against	1,2,6	6,13	E	C, P	M IV	L	P

CO No.	CO	PO	PSO	Cognitive Level	Knowledge	Module	L / T	P
	documentation and referencing standards.							
CO6	Design a complete research proposal, including research questions, a conceptual framework and a presentation of findings.	1,2,3,6	13	C	P, M	M V	L	P
Cognitive Levels: R – Remember U – Understand Ap – Apply An – Analyse E – Evaluate C – Create Knowledge: F – Factual C – Conceptual P – Procedural M – Metacognitive								

Mapping of COs with PSOs

CO \ PSO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11	PSO12	PSO13	PSO14
CO1	-	-	-	-	-	-	-	-	-	-	-	-	3	-
CO2	-	-	-	-	-	-	-	-	-	-	-	-	3	-
CO3	-	-	-	-	-	2	-	-	-	-	-	-	3	-
CO4	-	-	-	-	-	2	-	-	-	-	-	-	2	-
CO5	-	-	-	-	-	2	-	-	-	-	-	-	3	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	3	-
Correlation: (Nil) – No correlation 1 – Mild 2 – Moderate 3 – Strong														

Mapping of COs with POs

CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	2	-	-	-	2	-	-
CO2	3	2	-	-	-	1	-	-
CO3	2	3	-	-	-	1	-	1
CO4	3	2	-	-	-	1	-	-
CO5	3	2	-	-	-	1	-	-
CO6	2	1	2	-	-	2	-	-
Correlation: (Nil) – No correlation 1 – Mild 2 – Moderate 3 – Strong								

Assessment Rubrics

Assessment tools: Quiz / Assignment / Discussion / Seminar / Case Study / Activity / Internal Examination / Project / End Semester Examination

	Internal Exam	Assignment	Project / Case Study	End Semester Exam
CO1	✓			✓
CO2	✓			✓
CO3	✓	✓		✓
CO4	✓		✓	✓
CO5	✓		✓	✓
CO6	✓		✓	

Assessment Pattern

Total marks: 80 (4-credit course: 3 theory credits + 1 practical credit). Theory – 60 marks (CCA : ESE = 30 : 70); Practical – 20 marks (CCA : ESE = 40 : 60).

Component	Basis / Assessment Tools	Marks
THEORY COMPONENT — 3 Credits (Total: 60 Marks) CCA : ESE = 30 : 70		
CCA – Theory – All Modules (I–V)		18
Formative Assessment – Theory (FA)	Three components of 3 marks each (3 + 3 + 3 = 9 marks): • Research problem and questionnaire design assignment (3 marks) • Data analysis report using spreadsheet tools (3 marks) • Quiz on research methodology concepts and referencing standards (3 marks)	9
Summative Assessment – Theory (SA)	Internal examination conducted after a defined instructional period; the score is converted to 9 marks	9
ESE – Theory (Modules I–IV only)		42
Written Examination	90 minutes – covering Modules I, II, III and IV only	42
Sub-total – Theory		60
PRACTICAL COMPONENT — 1 Credit (Total: 20 Marks) CCA : ESE = 40 : 60		
CCA – Practical – All Modules (I–V)		8
Formative Assessment – Practical (FA)	Continuous assessment of practicum exercises across all modules; recorded in the practicum portfolio.	4
Summative Assessment – Practical (SA)	Practical viva or structured demonstration conducted after a defined practicum period.	4
ESE – Practical		12
Practical Examination	Practical examination / project presentation – 30 minutes.	12
Sub-total – Practical		20
Grand Total		80

Notes:

Total marks: 80 (4-credit course: 3 theory credits + 1 practical credit). Theory – 60 marks (CCA : ESE = 30 : 70); Practical – 20 marks (CCA : ESE = 40 : 60).

Theory Formative Assessment (FA): continuous, in-process evaluation across all modules (I–V). The three suggested tools (3 + 3 + 3 = 9 marks) are indicated above.

Theory Summative Assessment (SA): internal examination conducted after a defined instructional period; the score is converted to 9 marks. Covers all modules (I–V).

Theory ESE: 90-minute written examination covering Modules I–IV only (42 marks). Module V assessed through Theory CCA only. Theory ESE covers Modules I–IV only.

Practical Formative Assessment (FA): continuous evaluation of practicum exercises recorded in the practicum portfolio across all modules (4 marks).

Practical Summative Assessment (SA): practical viva or structured demonstration conducted after a defined practicum period (4 marks).

Practical ESE (12 marks): a 30-minute practical examination / project presentation.