



Office of Doctoral Studies
Course Outline

Course Structure: Mixed Methodological Tools in Business and Social Research

Course Title	Mixed Methodological Tools in Business and Social Research
Semester & Academic Year	Fall Semester 2026
Credits	3
Course Code	DS-E-023
Discipline/Area	Data analysis in Business and Social domain
Provide details, if this course is a prerequisite for any course/specialization	General computer skills and a familiarity with charting tools like Microsoft Excel are necessary.
Name of the Faculty Member/Course Instructor	Sanjeev Yadav
Contact Details of the Faculty Member	Email: Sanjeev.yadav@jgu.edu.in Mobile: 7419867721
Faculty Member's Open Office Day/s & Time	3rd Floor South block 9B, Faculty office block, prior appointment Monday to Friday post lunch (2:00 - 6:00 PM)

INTRODUCTION

This course is design for Ph.D. and Post graduate level students who have done basic statistic courses earlier. The course is designed to familiarize the doctoral students with the advance data analysis technique. The selected case illustration will lay down the foundation that will help them to use the acquiring skills to solve research problems or have shaped and influences a research sub-stream. I personally believe that with the advancement of data analysis tools in mixed methods context has become an inevitable part of research.

COURSE OBJECTIVES 3

The objectives of this course are multifield, the students will get a chance to update their skills in the data analytics software. This course is designed to build up the advance skills necessary for research and familiarize themselves with the software which will help them in computing the most relevant information form data during their actual research.

By the end of the course, one would:

- Hands on usage of qualitative as well as quantitative research methods tools.
- Knowledge of advance data analytics models and their applications
- Able to apply the acquired skills in solving assignments which will mimic real case studies of Social Sciences.

COURSE LEARNING OBJECTIVES (CLO)

The specific learning outcomes (or objectives) of the course aims to shape the attitudes of learners regarding the field of advance tools of research methods. By completing this course, the student will learn to perform the following:

CLO 1: Understand different types of research methodology and their uses.

CLO 2: Identify Problem, Formulate Research Questions and Research Design, Preparation & Refinement of Conceptual Lens, preparation of Qualitative and Quantitative Protocol.

CLO 3: Understanding Data analysis method (primary and secondary), NVivo, fsQCA, SEM, Meta-SEM, Thematic Content Analysis, fsQCA-SEM, fsQCA-Meta.

CLO 4: Compute, interpret and apply the results of identified literature and correlations, Simple & multiple regression analysis.

CLO 5: Demonstrate an understanding of Factor Analysis, SEM and Meta Analysis.

EVALUATION SCHEMA

The course grade will be determined on the basis of

Assessment Task	Weightage	Nature
A1. End Term Exam	50%	Individual
A2. Quiz	15%	Individual
A3. Presentation/ Assignment	20%	Individual/Group
A4. Group project	15%	Individual/ Group

DESCRIPTION OF ASSESSMENTS

A1. End Term Examination is the summative take-home assessment which will be conducted by the Examination Office after the completion of the course at the end of the semester. This will cover all the 5 learning objectives.

A2. Quiz: A comprehensive quiz will be conducted on session on CLOs 1 & 2 through UMS/Moodle and will serve as a formative assessment.

A3. Presentation/Assignment: Each student has to work on an assignment or presentation to fulfil any of the 5 learning objectives. The workings and findings must be presented in front of the class via MS Teams. The presentations will be recorded for evaluations.

A4. Group Project: Each student must be a part of Group project this will also serve as a formative assessment.

TEACHING METHOD

- Students will read class material, study best and worst practices, compare and contrast real-world examples, engage in problem solving, and participate in discussions related to the course material.
- Students will also practice applying the techniques and best practices discussed to real-world problems with the help of various tools/software.
- Interactive approach of learning through online data base platform.
- Learning by doing will be the main teaching methods for this course.

TEXT BOOK DETAILS

S. No.	TITLE	AUTHOR	PUBLISHER
1	Exploring Research	Neil J. Salkind	Pearson
2	Applied Business Statistic	Ken Black	Wiley
3	Multivariate Data Analysis	Hair et al	Pearson
4	Research Methodology: Methods & Techniques	CR Kothari	New Age International Publishers
6	A concise guide to market research	Erik Mooi , Marko Sarstedt	Springer
5	Introduction to Meta-Analysis	Michael Borenstein, L. V. Hedges, J. P. T. Higgins and H. R. Rothstein	Wiley

DETAIL SESSION PLAN

Course Name: Mixed Methodological Tools in Business and Social Research

Topic	Session	Reading
Basic introduction of Mixed Methods Research		
Quantitative Method (SEM, Meta analysis, MCDM) and Qualitative Methods (fsQCA, NVivo, Atlas. Ti, Bibliometric): Primary and Secondary data collection in mixed methods research, Types of data, Analysis of data on specific software	1-6	<i>Research papers and cases will discuss in the class depending on the research domain</i>
Practice exercise with published paper and hands-on in the class	7-9	
NVivo-SEM		
NVivo based Structure Equation Modelling approach: Data calibration of qualitative information, construct reliability and validity, hypothesis checking using SEM analysis	10-12	<i>Research papers and cases will discuss in the class depending on the research domain</i>
Practice exercise with published paper and hands-on in the class	13-15	
Bibliometric analysis-SEM		
Bibliometric cluster-based SEM: Cluster interpretation for hypothesis formulation, construct reliability and validity, hypothesis checking using SEM analysis	16-18	<i>Research papers and cases will discuss in the class depending on the research domain</i>

Practice exercise with published paper and hands-on in the class	19-21	
Meta-SEM		
Meta analysis based Structural equation modelling: Calibration of meta- analysis data for conducting SEM analysis with construct reliability and validity, hypothesis checking using SEM analysis	22-24	<i>Research papers and cases will discuss in the class depending on the research domain</i>
Practice exercise with published paper and hands-on in class	25-27	
SEM-fsQCA		
Structural equation modelling based Fuzzy-set qualitative comparative analysis: Calibration of SEM data for fsQCA analysis (Calibration (membership score using), Truth table, Combine parsimonious and intermediate solutions, Configurational analysis, Predictive analysis)	28-30	<i>Research papers and cases will discuss in the class depending on the research domain</i>
Practice exercise with published paper and hands-on in class	31-33	
Meta-fsQCA		
Meta analysis based Fuzzy-set qualitative comparative analysis: Calibration of Meta analysis data for fsQCA analysis (Calibration (membership score using), Truth table, Combine parsimonious and intermediate solutions, Configurational analysis, Predictive analysis)	34-36	<i>Research papers and cases will discuss in the class depending on the research domain</i>
Practice exercise with published paper and hands-on in class	37-39	
NVivo-fsQCA		
NVivo based Fuzzy-set qualitative comparative analysis: Data calibration of qualitative information, fsQCA analysis (Calibration (membership score using), Truth table, Combine parsimonious and intermediate solutions, Configurational analysis, Predictive analysis)	40-42	<i>Research papers and cases will discuss in the class depending on the research domain</i>
Practice exercise with published paper and hands-on in class	43-44	

Special comments on this course:

It is assumed that each student works on her/his own computer. The PhD students should install the program VOS VIEWER/ Excel/ SPSS, AMOS software's, JAMOVI, Meta essential, fsQCA on their laptops before the course starts.