

**MES Asmabi College, P Vemballur**

**P.G Department of Economics**

**Proposal for the Certificate Course 2023-24**

Department : P G Department of Economics  
Name of the Course : Certificate Course in Research Methodology  
Course Code : AS23RMES  
Name of the Coordinator : Dr .M.P Nizar  
9846856940 ,nisarerm@gmail.com  
Head of the Department : Dr. Haseena V.A  
Maximum number of students : 70  
Duration of the course : 30hrs  
Level : UG/PG  
Teaching Methodology : Direct method, group discussions, pair work  
Teaching aids : Ppt, handouts, charts  
Evaluation procedure : Diagnostic test in the beginning, weekly  
mock test, final mcq test after the course  
Collaborating agency, if any : Nil  
Project, Assignment, Internship: Nil  
Date of Registration : 11/07/2023  
Tentative date of Course Completion : 18/09/2023  
Date of final exam : 28/09/2023  
Date of Issue of Certificate : 30/10/2023  
Course fee : 500/-

## Course Structure

### Objectives:

1. To enable participants to use the statistical software for data analysis
2. To provide a framework and guidelines for students to clearly define research questions, hypothesis, and objectives.

### Module I

- Research: Meaning, Objectives and Importance of Research (5 hours)

### Module II

- Defining Research Problem: (5 hour)

### Module: III

- Data collection and parametric & non parametric tests (10 Hours)

### Module IV

- Multivariate Analysis Techniques (6 hours)

### Module :V

### Interpretation and Report Writing

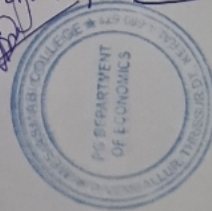
(4 hours)

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KODUNGALLUR 680 671



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# MES Asmabi College, P Vemballur

## Department of Economics

Certificate Course: Research methodology and Data analysis using Statistical Software

Course Code: AS23RMES








### LIST of Students Enrolled

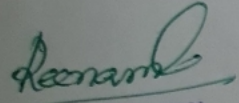
SL.NO.	Roll No.	CAP ID	Adm. No.	Name	Gender	Class	Sig
1	UG23BCM43	CAP23UG508405	1306/23	FATHIMA THANSEELA K S	FEMALE	first year	
2	UG23BCM44	CAP23UG572711	1472/23	GOPIKA P R	FEMALE	first year	
3	UG23BCM45	CAP23UG514336	1314/23	HISANA PARVIN V M	FEMALE	first year	
4	UG23BCM46	CAP23UG558840	1104/23	HISANA THASNIM	FEMALE	first year	
5	UG23BCM48	CAP23UG532385	1137/23	JASITHA C J	FEMALE	first year	
6	UG23BCM49	CAP23UG543683	1180/23	MISNA SHERIN	FEMALE	first year	
7	UG23BCM56	CAP23UG505021	1238/23	NAFLA A N	FEMALE	first year	
8	UG23BCM62	CAP23UG528461	1113/23	VRINDHA BABU	FEMALE	first year	
9	UG23SAQ20	CAP23UG586654	1207/23	FATHIMA HISANA P	FEMALE	first year	
10	UG23SAQ21	CAP23UG599951	1160/23	FATHIMA SIYA K	FEMALE	first year	
11	UG23SAQ22	CAP23UG614183	1404/23	LAKSHMI NANDA P P	FEMALE	first year	
12	UG23SAQ25	CAP23UG502942	1217/23	NASMA JAMAL	FEMALE	first year	
13	UG23SAQ26	CAP23UG532606	1178/23	NIMISHA A N	FEMALE	first year	
14	UG23SAQ27		1129/23	NIVEDITA H	FEMALE	first year	

		CAP23UG609991					
15	UG23SAQ28	CAP23UG598001	1209/23	RISWANA C M	FEMALE	first year	Riswana
16	UG23SAQ29	CAP23UG596475	1175/23	RIZWANA N N	FEMALE	first year	Rizwana
17	UG23SAQ30	CAP23UG613412	1422/23	SADHIYA P S	FEMALE	first year	Sadhiya
18	UG23SAQ32	CAP23UG587318	1148/23	SREEBHADRA P S	FEMALE	first year	Sreebhadra
19	UG23SAQ33	CAP23UG605816	1466/23	SREELEKSHMI S THANKAM	FEMALE	first year	Sreelekshmi
20	UG23SAQ34	CAP23UG529787	1122/23	THAHSIN FATHIMA M S	FEMALE	first year	Thahsin
21	UG23SAQ35	CAP23UG612031	1216/23	VANDHANA P R	FEMALE	first year	Vandhana
22	UG23BTHM32	CAP23UG606012	4090/23	RAMEENA C A	FEMALE	first year	Rameena
23	UG23BTHM34	CAP23UG505646	3653/23	SANAM PARVEEN V.N	FEMALE	first year	Sanam
24	UG23BTHM37	CAP23UG524307	3925/23	SWALIHA P A	FEMALE	first year	Swaliha
25	UG23BLM22	CAP23UG531895	3772/23	AMEENA SHIRIN	FEMALE	first year	Ameena
26	UG23BLM24	CAP23UG507481	4016/23	AMNA M N	FEMALE	first year	Amna
27	UG23BLM26	CAP23UG518572	3674/23	ATHIRA P P	FEMALE	first year	Athira
28	UG23BLM27	CAP23UG588992	3713/23	DEVANANDA N R	FEMALE	first year	Devananda
29	UG23BLM28	CAP23UG527005	4006/23	DEVANANDA VM	FEMALE	first year	Devananda
30	UG23BLM29	CAP23UG550830	3936/23	FATHIMA O H	FEMALE	first year	Fathima
31	UG22BCM01	CAP22UG339314	560/2022	FARSEENA P N	FEMALE	second year	Farseena
32	UG22BCM06	CAP22UG339370	858/2022	NAJVA U	FEMALE	second year	Najva
33	UG22BCM08	CAP22UG319790	839/2022	AJANYA K R	FEMALE	second year	Ajanya
34	UG22BCM09	CAP22UG324997	564/2022	ANSILA BASHEER	FEMALE	second year	Ansila
35	UG22BCM10	CAP22UG354505	570/2022	DHANYA S SUKUMARAN	FEMALE	second year	Dhanya
36	UG22BCM12	CAP22UG330915	601/2022	FATHIMA P S	FEMALE	second year	Fathima
37	UG22BCM13	CAP22UG332688	783/2022	FATHIMATHU	FEMALE	second	Fathimathu



				SAFA T M		year	
38	UG22BCM14	CAP22UG324302	596/2022	SETHULAKSHMI P S	FEMALE	second year	<i>[Signature]</i>
39	UG23BCM47	CAP23UG614174	1400/23	IRFANSHA P A	MALE	first year	<i>[Signature]</i>
40	UG23BCM50	CAP23UG512557	1127/23	MOHAMED JASSIM	MALE	first year	<i>[Signature]</i>
41	UG23BCM51	CAP23UG531436	1297/23	MOHAMED SAHAL C A	MALE	first year	<i>[Signature]</i>
42	UG23BCM52	CAP23UG542661	1109/23	MOHAMMED SAHAL P Y	MALE	first year	<i>[Signature]</i>
43	UG23BCM53	CAP23UG503209	1294/23	MUHAMED BASIDH	MALE	first year	<i>[Signature]</i>
44	UG23BCM54	CAP23UG602780	1270/23	MUHAMMAD FARZEEN	MALE	first year	<i>[Signature]</i>
45	UG23BCM55	CAP23UG516690	1286/23	MUHAMMED BILAL T.A	MALE	first year	<i>[Signature]</i>
46	UG23BCM57	CAP23UG511364	1128/23	NANDHA KRISHNAN P M	MALE	first year	<i>[Signature]</i>
47	UG23BCM58	CAP23UG533696	1136/23	NAPHUL LAL P U	MALE	first year	<i>[Signature]</i>
48	UG23BCM59	CAP23UG535937	1295/23	RAMSIL K A	MALE	first year	<i>[Signature]</i>
49	UG23BCM60	CAP23UG597310	1157	SANJAY P S	MALE	first year	<i>[Signature]</i>
50	UG23BCM61	CAP23UG541952	1244/23	SARANG M S	MALE	first year	<i>[Signature]</i>
51	UG23SAQ23	CAP23UG563507	1183/23	MOHAMMED SHAMIL P	MALE	first year	<i>[Signature]</i>
52	UG23SAQ24	CAP23UG504118	1269/23	MUHAMMED MEHFOOS P M	MALE	first year	<i>[Signature]</i>
53	UG23SAQ31	CAP23UG529405	1219/23	SHARAFAS T S	MALE	first year	<i>[Signature]</i>
54	UG23BTHM31	CAP23UG537708	3894/23	NAHIDHA P N	MALE	first year	<i>[Signature]</i>
55	UG23BTHM33	CAP23UG502367	3865/23	RINSHIK V Y	MALE	first year	<i>[Signature]</i>
56	UG23BTHM35	CAP23UG569020	3932/23	SHAHSIL K S	MALE	first year	<i>[Signature]</i>
57	UG23BTHM36	CAP23UG583570	3859/23	SREEJITH P S	MALE	first year	<i>[Signature]</i>
58	UG23BTHM38	CAP23UG573485	3955/23	V.A MOHAMED MUSHTHAK	MALE	first year	<i>[Signature]</i>
59	UG23BLM20	CAP23UG619986	4086/23	AMAN R L	MALE	first year	<i>[Signature]</i>
60	UG23BLM21	CAP23UG527266	3898/23	AMEEN P N	MALE	first year	<i>[Signature]</i>
61	UG23BLM23	CAP23UG525497	3781/23	AMEGH SUDHEESH	MALE	first year	<i>[Signature]</i>

62	UG23BLM25	CAP23UG594186	3970/23	ASHAL ANVAR	MALE	first year	
63	UG22BCM02	CAP22UG348848	629/2022	MOHAMMED SALIH M S	MALE	second year	
64	UG22BCM03	CAP22UG326528	912/2022	MUHAMMED SAHAL T P	MALE	second year	
65	UG22BCM04	CAP22UG339680	607/2022	MUHAMMED SHABEEB M A	MALE	second year	
66	UG22BCM05	CAP22UG347164	628/2022	MUJEEB RAHMAN K K	MALE	second year	
67	UG22BCM07	CAP22UG304485	694/2022	ABINSHA P N	MALE	second year	
68	UG22BCM11	CAP22UG326063	742/2022	DILSHAD P R	MALE	second year	

  
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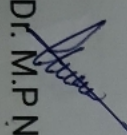
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PG DEPARTMENT OF ECONOMICS

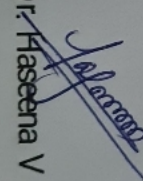
Certificate course on Research methodology and Data analysis using Statistical Software


This is to certify that Mr/Ms Nasma Jamal has completed the certificate course  
in Research methodology and Data analysis using Statistical Software conducted by  
Department of Economics, MES Asmabi college, P Vemballur, Kodungallur during the academic year  
2023-24. ~~He~~/she has secured A+ Grade.

P Vemballur

30/10/2023

  
Dr. M.P Nizar  
Coordinator

  
Dr. Haseena V A  
HOD  
Department of Economics

  
Dr. A Biju  
Principal

MES ASMABI COLLEGE P VEMBALLUR  
P G DEPARTMENT OF ECONOMICS  
SYLLABUS AND COURSE PLAN (2023-2024)

COURSE NAME: CERTIFICATE COURSE-

Research methodology and Data analysis using Statistical Software

COURSE CODE: AS23RMES

DURATION: 30 HOURS

COURSE OBJECTIVE/SCOPE:

1. To enable participants to use the statistical software for data analysis
2. To provide a framework and guidelines for students to clearly define research questions, hypothesis, and objectives.

COURSE OUTCOME:

1. Master essential in using statistical software
2. More clarity in identifying the statistical tests for sample

SYLLABUS:

Module - I

Research: Meaning, Objectives and Importance of Research, Role of Research in Functional Areas: Finance, Marketing, HRD, Research Methodology, Process of Research.

Module - II

Defining Research Problem: Process of Formulating Hypothesis, Research Design, Sampling Design.

Module - III

Collecting, Processing and Analysis of Data: Design of Questionnaire, Testing of Hypothesis, Parametric and Non-parametric Tests, T-test, Z-test, Chi-square test.

Module - IV

Multivariate Analysis Techniques: Multiple Regression Analysis, Discriminated Analysis, Factor Analysis, ANOVA.

Module - V

Interpretation and Report Writing: Importance and Techniques of Interpretation, Significance of Report Writing, Steps in Writing Report, Layout of the Research Report, Types of Report.

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For  
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MES ASMABI COLLEGE P VEMBALLUR

P G DEPARTMENT OF ECONOMICS

COURSE NAME: CERTIFICATE COURSE-

Research methodology and Data analysis using Statistical Software

TEST

TIME: 1 HOUR

MAXIMUM MARK : 20

(Answer all questions)

1. Which of the following is NOT a characteristic of qualitative research?

- a) Emphasis on context and depth
- b) Utilization of statistical techniques
- c) Subjectivity in interpretation
- d) Flexible and evolving research design

2. What is a hypothesis in research?

- a) A tentative explanation for observed phenomena
- b) A proven fact after experimentation
- c) A statistical technique used for analysis
- d) A qualitative research approach

3. Which of the following is a primary data collection method?

- a) Literature review
- b) Survey
- c) Meta-analysis
- d) Secondary data analysis

4. In experimental research, what is the purpose of a control group?

- a) To receive the experimental treatment
- b) To provide a baseline for comparison

- c) To ensure random assignment
- d) To eliminate confounding variable

5. What does reliability refer to in research?

- a) Consistency of measurement
- b) Generalizability of findings
- c) Accuracy of data analysis
- d) Ethical standards in data collection

6. What is the key characteristic of a case study research design?

- e) Large sample size
- f) Longitudinal analysis
- g) In-depth investigation of a single unit
- h) Quantitative data collection

7. Which statistical test is appropriate for comparing means of two independent groups?

- i) Pearson correlation coefficient
- j) Chi-square test
- k) Independent samples t-test
- l) One-way ANOVA

8. Which of the following is a non-probability sampling technique?

- m) Simple random sampling
- n) Systematic sampling
- o) Convenience sampling
- p) Stratified sampling



9. What is a Type I error in hypothesis testing?
- Incorrectly rejecting a true null hypothesis
  - Failing to reject a false null hypothesis
  - Finding a significant result when there is none
  - Having a low statistical power
10. What does triangulation involve in qualitative research?
- Combining different methods or data sources
  - Generating multiple hypotheses
  - Testing a single hypothesis with different samples
  - Verifying statistical significance
11. What does the p-value in hypothesis testing indicate?
- Strength of the relationship between variables
  - Probability of observing the data if the null hypothesis is true
  - Effect size of the experimental manipulation
  - Confidence interval of the sample mean
12. What is a histogram used for in data analysis?
- Displaying the relationship between two variables
  - Showing the distribution of a single variable
  - Comparing means of different groups
  - Analyzing outliers in a dataset

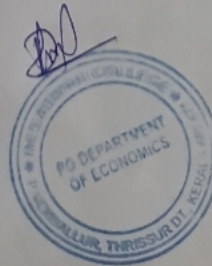
13. Which of the following is a measure of central tendency?
- a. Variance
  - b. Standard deviation
  - c. Median
  - d. Range
14. What does the coefficient of determination (R-squared) measure?
- a. The strength of the linear relationship between variables
  - b. The difference between observed and predicted values
  - c. The significance level of a statistical test
  - d. The variability explained by the independent variable
15. When should a researcher use a qualitative approach rather than a quantitative approach?
- a. When aiming to generalize findings to a population
  - b. When interested in exploring meanings and experiences
  - c. When requiring precise numerical measurements
  - d. When focusing on hypothesis testing
16. What is meant by the term "sampling bias"?
- a. Systematic error introduced by the sampling method
  - b. Random variation in the sample data
  - c. Overestimation of effect sizes
  - d. Underestimation of standard errors



17. In regression analysis, what is the purpose of multicollinearity diagnostics?
- To check for the normality of residuals
  - To assess the linearity assumption
  - To detect relationships among predictor variables
  - To evaluate the goodness of fit of the model
18. What is thematic analysis used for in qualitative research?
- Calculating statistical significance
  - Identifying themes or patterns in data
  - Testing causal relationships
  - Measuring effect sizes
19. What is the main advantage of longitudinal research designs?
- They allow for the study of changes over time
  - They involve large sample sizes
  - They provide immediate results
  - They eliminate confounding variables
20. Which of the following is a disadvantage of using secondary data analysis?
- It is time-consuming and expensive
  - It may lack relevance or specificity
  - It requires expertise in statistical software
  - It allows for greater control over variables

*Pranav*  
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MES ASMABI COLLEGE P VEMBALLUR  
 CERTIFICATE COURSE  
 RESEARCH METHODOLOGY AND DATA ANALYSIS USING  
 STATISTICAL SOFTWARE 2023-2024  
 CODE: AS23RMES  
 MARK LIST

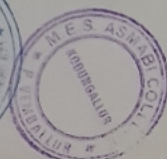
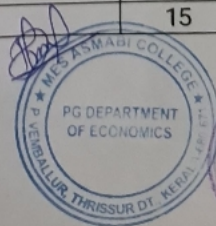
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3	UG23BCM45	HISANA PARVIN V M	19
4	UG23BCM46	HISANA THASNIM	18
5	UG23BCM48	JASITHA C J	18
6	UG23BCM49	MISNA SHERIN	20
7	UG23BCM56	NAFLA A N	15
8	UG23BCM62	VRINDHA BABU	15
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21	UG23SAQ35	VANDHANA P R	18
22	UG23BTHM32	RAMEENA C A	20
23	UG23BTHM34	SANAM PARVEEN V.N	15
24	UG23BTHM37	SWALIHA P A	12
25	UG23BLM22	AMEENA SHIRIN	14
26	UG23BLM24	AMNA M N	12
27	UG23BLM26	ATHIRA P P	16
28	UG23BLM27	DEVANANDA N R	17
29	UG23BLM28	DEVANANDA VM	20
30	UG23BLM29	FATHIMA O H	13



31	UG22BCM01	FARSEENA P N	14.5
32	UG22BCM06	NAJVA U	19
33	UG22BCM08	AJANYA K R	14.5
34	UG22BCM09	ANSILA BASHEER	15
35	UG22BCM10	DHANYA S SUKUMARAN	17
36	UG22BCM12	FATHIMA P S	20
37	UG22BCM13	FATHIMATHU SAFA T M	15
38	UG22BCM14	SETHULAKSHMI P S	19
39	UG23BCM47	IRFANSHA P A	15
40	UG23BCM50	MOHAMED JASSIM	12
41	UG23BCM51	MOHAMED SAHAL C A	19
42	UG23BCM52	MOHAMMED SAHAL P Y	20
43	UG23BCM53	MUHAMED BASIDH	15
44	UG23BCM54	MUHAMMAD FARZEEN	19
45	UG23BCM55	MUHAMMED BILAL T.A	14
46	UG23BCM57	NANDHA KRISHNAN P M	20
47	UG23BCM58	NAPHUL LAL P U	15
48	UG23BCM59	RAMSIL K A	17
49	UG23BCM60	SANJAY P S	20
50	UG23BCM61	SARANG M S	19
51	UG23SAQ23	MOHAMMED SHAMIL P	15
52	UG23SAQ24	MUHAMMED MEHFOOS P M	20
53	UG23SAQ31	SHARAFAS T S	19
54	UG23BTHM31	NAHIDHA P N	14
55	UG23BTHM33	RINSHIK V Y	19
56	UG23BTHM35	SHAHSIL K S	16
57	UG23BTHM36	SREEJITH P S	15
58	UG23BTHM38	V.A MOHAMED MUSHTHAK	17
59	UG23BLM20	AMAN R L	16
60	UG23BLM21	AMEEN P N	15
61	UG23BLM23	AMEGH SUDHEESH	17
62	UG23BLM25	ASHAL ANVAR	20
63	UG22BCM02	MOHAMMED SALIH M S	16
64	UG22BCM03	MUHAMMED SAHAL T P	18
65	UG22BCM04	MUHAMMED SHABEEB M A	20
66	UG22BCM05	MUJEEB RAHMAN K K	19
67	UG22BCM07	ABINSHA P N	15
68	UG22BCM11	DILSHAD	15

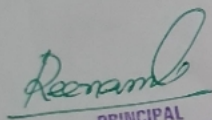
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**PRINCIPAL**  
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CERTIFICATE COURSE  
RESEARCH METHODOLOGY AND DATA ANALYSIS USING  
STATISTICAL SOFTWARE 2023-2024  
CODE: AS23RMES  
REPORT AND COURSE OUTCOME

The certificate course offered by Department of Economics started on 11/7/2023. 68 students joined and completed the course. The main objective of this course is to enable participants to use the statistical software for data analysis and to provide a framework and guidelines for students to clearly define research questions, hypothesis, and objectives. The course includes 30 hours of theory and practical class. Certificate was provided to the students on the basis of their attendance and test score. After the completion of the class they got more clarity in the statistical softwares in the field of research methodology.

  
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