

Lecture Plan

Name of the college: Government College of Arts, Science and Commerce, Sanquelim- Goa

Name of Faculty: Dr. Guruprasad R. Naik

Subject: Economics

Paper code: ECO-141

Program: FYBA SEC

Division: -

Academic year: 2024 - 2025

Semester: I

Total Lectures: 16

Course Objectives : To familiarize the students with Basic statistical concepts and their application using open-source software (spreadsheets and GRETL).

Expected Course Outcome:

1. To familiarize the students with Basic statistical concepts and their application using open-source software (spreadsheets and GRETL).

Student Learning Outcome:

1. To familiarize the students with Basic statistical concepts and their application using open-source software (spreadsheets and GRETL).

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
June	28/06/2024	29/06/2024	1	Module 1: Introduction to statistical concepts: Defining statistics, Reasons for Using Statistical Methods,		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai

						<ul style="list-style-type: none"> ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
July	01/07/2024	06/07/24	1	Understanding Probability and Random variables	Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company.

							<ul style="list-style-type: none"> ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
July	08/07/2024	13/07/24	1	Population vs Sample, Descriptive and Inferential statistics, Sample Statistics and Population Parameters, Idea of statistical significance,		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
July	15/07/2024	20/07/24	1	Classification of data (variables): Quantitative (Discrete and Continuous) and Qualitative (categorical); Primary and Secondary data sources,		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA.

							<ul style="list-style-type: none"> ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
July	22/07/2024	27/07/24	1	Data representation: Commonly used Tables and Graphs		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
July	29/07/2024	03/08/24	1	Module 2: Descriptive statistics: Measures of Central Tendency: Mean, Median and Mode);		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition

							<p>Version 1.0.</p> <ul style="list-style-type: none"> ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
July	05/08/2024	10/08/24	1	Meaning, Merits & Demerits, Manual calculations (Discrete and Continuous)		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition <p>Version 1.0.</p> <ul style="list-style-type: none"> ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,

August	12/08/2024	17/08/24	1	Measures of Dispersion: Range, Inter Quartile Range, Semi Quartile Range, Mean Deviation, Variance and Standard Deviation.		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
August	19/08/2024	24/08/24	1	Meaning, Merits & Demerits, Manual calculations (Discrete and Continuous)		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA.

							<ul style="list-style-type: none"> ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
August	26/08/2024	31/08/24	1	Measures of Symmetry: Skewness and Kurtosis.		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
September	02/09/2024	07/09/24	1	Meaning, types, and interpretations		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition

							<p>Version 1.0.</p> <ul style="list-style-type: none"> ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
September	09/09/2024	14/09/24	1	<p>Module 3: Analysis using Spreadsheets and Gretl: Data Processing in spreadsheets: Primary data (cross-sectional): Cleaning,</p>		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,

September	16/09/2024	21/09/24	1	editing (re/naming variables, scale),		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
September	06/09/2024-12/09/24	September	GANESH CHATURTHI BREAK				
September	23/09/2024	28/09/24	1	and coding (categorical: nominal and ordinal variables,		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition,

							<p>Cengage Learning, USA.</p> <ul style="list-style-type: none"> ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
September/October	30/09/2024	05/10/24	1	generating dummy variables)		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
October	07/10/2024	12/10/24	1	Data representation: Commonly used Tables (with interpretation)		Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai

						<ul style="list-style-type: none"> ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company. ● David M. Levine, David F. Stephan, Timothy C. Krehbiel,
October	14/10/2024	19/10/24	1	Data representation: Commonly used Graphs (with interpretation)	Power point presentation/ Smart board	<ul style="list-style-type: none"> ● Gupta S.C. (2016): Fundamentals of Statistics, 7 th Edition, Himalaya Publishing House Pvt. Ltd, Mumbai ● Adkins, L. C. (n.d.). Using gretl for Principles of Econometrics, 5th Edition Version 1.0. ● Gerald Keller (2017): Statistics for Management and Economics, 11th Edition, Cengage Learning, USA. ● Black, Ken. (2019). Business Statistics: For Contemporary Decision Making (10th). New York: West Publishing Company.

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October	21/10/2024	22/10/2024	00	-	-	-	-

***Assessment Rubrics**

Component	Max Marks
ISA 1	10
ISA 2	-
Practical	-
Project	-
Semester End Exam	20