

Curriculum plan (Odd Semester 2022-23)

Teacher Name: Mr. Suresh Kumar

Paper name: Data Analysis

Class type: BA Eco Hons, 3rd Sem. SEC paper

Paper shared with: NA

Unit to be taken	Month wise schedule to be followed	Tests/Assignments/ Revision/Presentations etc
<p>Unit 1</p> <p>Introduction to the course: How can the representation and analysis of data help us study real world problems. Publicly available data sets.</p> <ul style="list-style-type: none"> • Levine et. al pgs 25-35, Chapter 1 Sections 1.1-1.3 • Devore, Chapter 1, pgs 32-33 (trimmed mean) • Data base of Indian Economy, RBI (www.dbie.rbi.org.in), world bank data set • On data and its representation and a large data set <p>https://www.ted.com/talks/hans_rosling_the_best_stats_you_ve_ever_see n (Gapminder.org)</p>	<p>August</p> <p style="margin-top: 100px;">Week 4</p>	<p>...</p>
<p>Unit II</p> <p>Using Data: Available statistical software, steps in data storage, organization and cleaning Levine et. al. Chapter 1, Section 1.4 onwards; Chapter 2, Sections 2.1-2.2 Gardener Chapter 1(pg1-24), ch 2(till pg52)</p> <p>Basics of MS Excel</p> <p>Working in excel with examples related to unit 2</p> <p>Basics of R and R studio</p> <p>Working in R studio with examples related to unit 2</p>	<p>September</p> <p style="margin-top: 100px;">Week 1</p> <p style="margin-top: 100px;">Week 2</p> <p style="margin-top: 100px;">Week 3</p> <p style="margin-top: 100px;">Week 4</p>	<p style="margin-top: 100px;">Assignment 1</p>
<p>Unit III</p> <p>Visualisation and Representation: Alternative forms of presenting summarising and representing data. Levine et. al. Chapter2, Section 2.3 onwards; Chapter3. Tattar et. al. Chapter 2(pg 15-18,41-46)</p> <p>Visualisation and Representation using excel</p>	<p>October</p> <p style="margin-top: 100px;">Week 1, 2</p>	

Visualisation and Representation using R studio	Week 3, 4	Assignment 2
Unit IV Simple estimation techniques and tests for statistical inference Levine et. al. Chapter7; Chapter8, Sections 8.1-8.4 and pg 292-293; Chapter9; Chapter10, Sections 10.1,10.4, Pg361- Summary onwards, Relevant parts of Excel guide Simple estimation techniques and tests for statistical inference using Excel Simple estimation techniques and tests for statistical inference using R studio	November Week 1 Week 2 Week 3 Week 4	Presentations Revision
Unit IV Simple estimation techniques and tests for statistical inference using R studio	December Week 1 and 2	Presentations Revision

References

1. D. Levine, D. Stephan, K. Szabat: Statistics for Managers using Microsoft Excel, 8th ed., Pearson (2017)
2. P. Tattar, S. Ramaiah, B. Manjunath: A Course in Statistics with R, Wiley (2018)
3. Mark Gardener: Beginning R The Statistical Programming Language, Wiley (2012)
4. Jay L. Devore: Probability and Statistics for Engineering and the Sciences, 8th edition, Cengage

Learning (2012)

Reference for Teachers

1. Hadley Wickham & Garrett Golemund: R for Data Science, (2017). It's a freely available online book.