DEPARTMENT OF ECONOMICS
DEVA MATHA COLLEGE, KURAVILANGAD
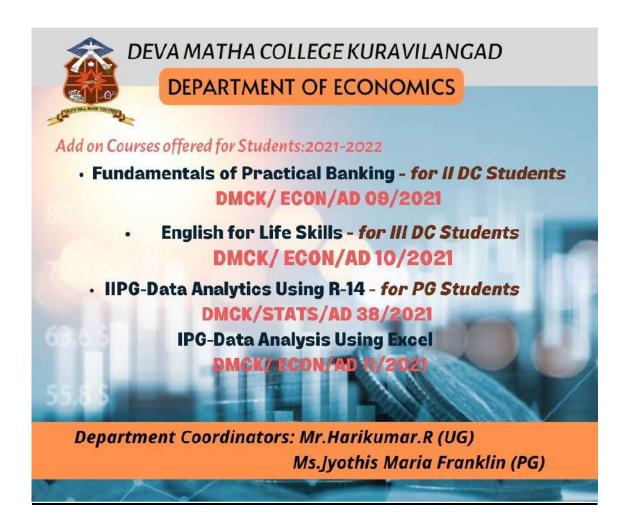
Affiliated to Mahatma Gandhi University, Kottayam

SYLLABUS

Add on Course
In
Data Analysis using Excel

Academic Year: 2021-22

Title: Data Analysis using Excel

Instructional Hours: 30 hours

Duration: 3 months

Mode of Instruction: Theory- Online Mode and Practical- Offline Mode

Intake Capacity: 20

Eligibility: Basic Computer Knowledge

Beneficiaries: 1st PG Econometrics

ADD-0N COURSE FOR THE YEAR 2022-23

Course Objectives:

1. To use different functions of MS Excel with regard to data analysis.
2. To understand the principles behind data mining, importing data and organizing data.
3. To apply statistical analysis and technologies on data to find trends, high level visual summaries and solve problems.
4. To start data analysis and modeling.

Module 1: Introduction to Microsoft Excel (10 hours)

Understanding the Excel- ribbon- Ribbon components- Understanding worksheet & workbook-Customization-Important Excel shortcuts.

Arithmetic Operations in Excel: Creating Excel sheet & entering data-Format Data (column name bold, align data, enclose data in boxes, and set the print area, print preview & page layout)

Data validation in Excel: Filtering, Grouping and Sorting

Module 2: Excel Functions (5 hours)

Basic Formulas & Functions: Formulas-Numeric functions-string functions-date time functions-VLOOKUP functions

Logical Functions: IF, AND, OR Nested IF & NOT

Module 3: Charts & Budget preparation (5 hours)

Charts: Pie, bar, column, Line, Combo charts (plotting charts).

Budget: Income sheet preparation, Expenditure sheet, Actual Annual saving & expected actual savings.

Module 4: Data Analysis using Excel (10 hours)

Importing & Entering Data: Importing xml & csv files, Entering and arranging data.

Creating Pivot Tables: Creating one dimensional pivot table with column names and 2 dimensional pivot tables (Practical).

Basic data analysis: Descriptive statistics, Correlation, Regression & its interpretation

References

Data Analysis with Excel by Manisha Nigam, BPB Publications. ISBN:9789388176675

Data Analysis using Excel Tutorial by edureka.

Assessment Procedure

Internal:

Multiple Choice Questions based Test of **10 marks** (10 Questions) based on theory.

Practical Test **10 marks** based on basic functions and formulas

<u>External:</u>

Multiple Choice Questions based Test of **40 marks** (20 Questions) based on theory.

Practical Test of **20 marks** based on basic functions and formulas, data sorting, data visualization and budget.

Report **20 marks** Time series data analysis including Descriptive statistics, Correlation, Regression & its interpretation

<u>Grading</u>

4.50 to 5.00 – A+ - Excellent

4.00 to 4.49 – A – Very Good

3.50 to 3.99 – B+ - Good

3.00 to 3.49 – B - Average

Below 3.00 – Below Average

Course outcome

This course enables students to undertake basic data analysis tasks required for term paper, Internship and

dissertations.