

# **VOCATIONAL SKILLS COURSE**

## **EXCEL APPLICATION IN ECONOMICS**

Course Objectives:

- Improve proficiency of students in Excel.
- Inculcate knowledge of applying excel tools to analysis of economic data.

Course Outcomes:

- Students will be able to create and format worksheets and create tables in excel
- Students will be able to use basic functions in excel to analyse data
- Students will be able to present economic data and relationship between economic variables by means of appropriate charts.
- Students will be able to format charts to present data as needed and to highlight specific parts of the chart/ figures representing data.

### **SEMESTER I**

#### **Unit 1: Creating and managing Workbook in excel**

**(15 lectures)**

1.1 Create and format Worksheets and Workbooks: Create a workbook, Import data from a delimited text file, Insert and delete columns or rows, Adjust row height and column width, Insert headers and footers, Hide or unhide worksheets, Hide or unhide columns and rows, link cells, worksheets and workbooks.

1.2 Create Tables: Create and Manage Tables, Manage Table Styles and Options, Filter and Sort a Table.

1.3 Summarize Data by using Functions: Perform calculations by using the SUM, MIN, MAX, COUNT, AVERAGE, IF, SUMIF, AVERAGEIF and COUNTIF function

1.4. Look up data: Look up data by using the VLOOKUP and HLOOKUP function

#### **Unit 2: Creating and formatting Charts**

**(15 lectures)**

2.1 Create Charts: Create a new chart, Add additional data series, Switch between rows and columns in source data, analyze data by using Quick Analysis

2.2 Format Charts: Resize charts, add and modify chart elements, apply chart layouts and styles, move charts to a chart sheet

2.3 Insert and Format Objects: Insert text boxes and shapes, insert images, modify object properties, add alternative text to objects for accessibility

2.4 Representation of Economic Data: Plotting of timeseries/economic variables.

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## SEMESTER II

Course outcomes:

Students will be able to extract economic data from secondary sources.

Students will be able to run regression model on economic data using excel.

Students will be able to interpret results of regression model obtained using excel.

### **Unit 1: Data Analysis in Excel**

**(15 lectures)**

1.1 Sources of economic data.

1.2 Descriptive analysis: Mean, Standard deviation, Coefficient of variation, correlation

1.3 Regression: running regression on excel and analysis of result.

1.4 Forecasting: Trend line using method of least squares and Moving averages.

### **Unit 2: Advanced Charts and Tables in Excel**

**(15 lectures)**

2.1. Create and Manage PivotTables: Create PivotTables, modify field selections and options, create slicers, Group PivotTable data, Add calculated fields, Format data.

2.2. Create and Manage Pivot Charts: Create Pivot Charts, Manipulate options in existing Pivot Charts, Apply styles to Pivot Charts, Drill down into Pivot Chart details.

2.3. Mail merge in excel.

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## **Skill Enhancement Course (SEC)**

### **Basics of Financial Literacy**

Course Objectives:

1. Understand the significance of financial planning and savings
2. Grasp the power of compounding
3. To introduce various savings related products to students

Course Outcomes:

1. Students will be able to prepare a financial plan, budget and manage personal finances.
2. Students will be able to calculate return on their investment
3. Students will be able to compute bond value, compute future and present value of annuities.
4. Students will be able to carry out online payment transactions.
5. Students will be able to plan for life insurance.

### **SYLLABUS -SEMESTER-I**

Unit 1: Introduction to Personal Finance

- 1.1. Meaning of Financial goal & financial planning. Steps in financial planning.
- 1.2. Sources of household income: salary, rental income, return from investments.
- 1.3. Key concepts of personal finance: Creating a budget, income, expenses and savings, surplus and deficit, investment and borrowing.
- 1.4. Meaning of Investment, return and risk, objectives of investment.

Unit 2: Saving related products (15 lectures)

- 2.1. Banking Sector: Banking services, different types of bank deposits, Opening and Managing bank account, Types of customer facilities- e-banking facilities, debit and credit card and other services. different types of bank loans.
- 2.2. Financial services of post office: different types of post - office savings scheme,
- 2.3. Role of insurance, various types of insurance products- life insurance for household, ULIP, SIP and Pension plan.
- 2.4. Consumer grievance redressal: Role of regulators - RBI, IRDAI.

**REFERENCES:**

- Madura Jeff, Personal Finance, Pearson Education Limited, Seventh Edition.
- Siegel Rachel & Yacht Carol, Personal Finance, Saylor Foundation,

## **SYLLABUS- SEMESTER II**

### **Basics of Financial Literacy**

#### Course Objectives:

- To familiarize students with different aspects of personal financial planning like savings, investment, taxation, insurance and retirement planning

#### Course Outcomes:

1. Students will be able to calculate tax liability and evaluate various tax saving options
2. Students will be able to plan and invest for their retirement.
3. Students will be able to evaluate and choose among various investments instruments like shares, bonds, derivatives, etc.
4. Students will be able to compare different mutual fund schemes

#### Unit 1: Investment in Capital Market

- 1.1. Basic Mathematics of investment: Time Value of Money - future and present value.
- 1.2. Securities market: various terms in the primary and secondary market.
- 1.3. Equities, Bonds, Mutual funds and its various schemes.
- 1.4. Cryptocurrency.

#### Unit 2: Household Income, Tax liability and Savings

- 2.1. Personal income tax structure in India.
- 2.2. Different components of salary & income tax deductions. Computing your tax liability & and filing your tax return.
- 2.3. Methods of reducing tax liability in India, Public Provident Fund.
- 2.4 Purchasing and financing a home, loan amortization.

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