Program: B.Com Economics and Analytics				Semester: IV	
Course: Practical Business Modelling AY: 2024-25				Course Code:	

Teaching Scheme				Evaluation Scheme	
Lecture (Hours per week)	Practical (Hours per week)	Tutorial (Hours per week)	Credit	Continuous Assessment (CA) (Marks)	Semester End Examinations (SEE) (Marks - Question Paper)
4 LABS	-	-	4		

Learning Objectives:
1. To compare between a model and business model
2. To measure the appropriateness of a business model using analytical tools
3. To create effective and efficient business models as per business needs
4. To use Microsoft Excel and Statistics for data modelling

Course Outcomes:

After completion of the course, learners would be able to:

CO1: Understand and execute business model designing as per the real problems

CO2: Identify best and worst practices in model building

CO3: Inspect and organize data by performing data cleansing in order for it to be used for modelling

CO4: Apply knowledge of analytics on data and know when and how to use it to
build problem-specific business models

Outline of Syllabus: (per session plan)

Module	Description	No of Hours
1	**Introduction the Models**	15
2	**Decision Analysis with Excel Solver**	15
3	**Descriptive Statistics and Visualization**	15
4	**Regression and Inferential Statistics**	15
Total		60
Practicals		-

Unit	Topic	No. of Hours
Module 1	**Introduction the Models** Introduction to Models, Linear Models and Optimization, Probabilistic Models, Regression Models, Examining Traditional Business Model Design Methods, Back of the Napkin Imitation, Falling into the Model, Discovering Problems with Traditional Methods, Too Many Things to Remember, Complex Interplay, Not All Factors Carry Equal Weight, Designing A Business Model By Using A Structured Process, Business Model Canvas, Four Box Business Model, Business Model Wheel	15
Module 2	**Decision Analysis with Excel Solver** Using Solver to Determine the Optimal Product Mix, Using Solver to Schedule Your Workforce, Using Solver to Solve Transportation or Distribution Problems, Using Solver for Capital Budgeting, Using Solver for Financial Planner, Using Solver to Rate Sports Teams, The Traveling Salesperson Person	15
Module 3	**Descriptive Statistics and Visualization** Overview of Using Data: Definitions and Goals, Types of Data, Modifying Data Creating Distributions from Data, Measures of Location, Measures of Variability, Analysing Distributions, Measures of Association Between Two Variables Data Visualization: Overview of Data Visualization, Tables, Charts, Advanced Data Visualization, Data Dashboards	15
Module 4	**Regression and Inferential Statistics** Introduction to Multiple Regression, Incorporating Qualitative Factors into Multiple Regression, Modelling Nonlinearities and Interactions Inferential Statistics Using The T-Test Data Analysis Tool, Performing Z-Test Calculations, Creating A Scatter Plot, Using The Regression Data Analysis Tool, Using the Correlation Analysis Tool, Using The Covariance Analysis Tool, Using The ANOVA Data Analysis Tools, Creating An F-Test Analysis, Using Fourier Analysis, Chi-Squared Test	15

Reference Books:

[1] Jim Muehlhausen, JD, "Business Models for Dummies", John Wiley and Sons

[2] Wayne L Winston, "Microsoft Excel 2019: Data Analysis and Business Modelling, Microsoft, 2019

[3] Stephen L. Nelson and Elizabeth C. Nelson, "Excel Data Analysis for Dummies", John Wiley & Sons Inc

Evaluation Pattern

The performance of the learner will be evaluated for 100 marks in two components. The first component will be a Continuous Assessment with a weightage of 40% of total marks per course. The second component will be a Semester end Examination with a weightage of 60% of the total marks per course. The allocation of marks for the Continuous Assessment and Semester end Examinations is as shown below:

1. **Internal Class Test - 10 Marks Paper Pattern (Pen Paper Based)**

Question 1	Fill in the Blanks	4 Marks
Question 2	Descriptive Question	3 Marks
Question 3	Descriptive Question	3 Marks

2. **20 Marks Internal Assignments / Practical Study / Case Study / Mini Project**

3. **60 Marks Final Exam Paper Pattern**

   a. Examination shall be conducted in machine test form in Batches (Max. Batch Size – 30 Students) in the computer laboratory

   b. One external examiner must be present along with the internal examiner (subject faculty in-charge) for the conduct of examination

   c. Question paper should have maximum number of distinct sets, kept faced down on table, from which student will pick up one question paper

   d. Duration of the examination is 2.5 Hrs

   e. Marks distribution is as follows:

1	Practical Question Two questions for 20 marks each = 2 * 20 = 40 and One question for 10 marks = 1 * 10 = 10	50 Marks

| 2 | Viva Voce | 05 Marks |
| 3 | Coursework Journal | 05 Marks |

Evaluation shall be done by the examiners, both internal and external, on machine in the computer laboratory

Students must prepare answer book during the examination with the code and output in it, which further must be printed