Lecture Plan

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

Name of Faculty: Ms. Reshma M. Badgier	**Subject:** ECONOMICS	
Paper code: ECO 221	**Program: BA**	**Division:**
Academic year: 2025-26	**Semester: IV**	**Total Practical:30**

Course Objectives: The objective of the course is to Introduce the students with decision-making tools using spreadsheets.

Student Learning Outcome:
1. Apply spreadsheet commands and functions in decision-making.
2. Use a spreadsheet solver for optimisation problems.
3. Use advanced spreadsheet techniques for multiproblem solutions.

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
December 2025	01/12/25	06/12/25	02	Unit 2: Preliminaries to Decision Analysis: Three-dimensional formulas, The Auditing Tool.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.

	08/12/25	13/12/25	02	Sensitivity Analysis with Data Tables. The Goal Seek Command, Using the Scenario Manager for Sensitivity Analysis.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	15/12/25	20/12/25	02	The COUNTIF, COUNTIFS, COUNT, COUNTA and COUNTBLANK Functions. The SUMIF, AVERAGEIF, SUMIFS, and AVERAGEIFS Functions. The OFFSET Function, The INDIRECT Function, Conditional Formatting, Sorting in Spreadsheets, Tables, Spin Buttons.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	22/12/25	27/12/25	01	Conditional Formatting, Sorting in Spreadsheets, Tables, Spin Buttons.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	29/12/25	03/01/26	01	Scroll Bars, Option Buttons,Combo Boxes and Group List Boxes.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
January 2026	05/01/26	10/01/26	02	Unit 3: Decision Analysis using Solver: An Introduction to Optimization with Solver.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.

	12/01/26	17/01/26	02	Using Solver to Determine the Optimal Product Mix.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	19/01/26	24/01/26	02	Using Solver to Schedule Your Workforce.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	26/01/26	31/01/26	02	Using Solver to Solve Transportation or Distribution Problem.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
February 2026	02/02/26	07/02/26	02	Using Solver for Capital Budgeting.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	09/02/26	14/02/26	02	Unit 4: Advanced uses of solver decision making: Using Solver for Financial Planning, Using Solver to Rate Sports Teams.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.

	16/02/26	21/02/26	02	Warehouse Location and the GRG Multistart and Evolutionary Solver Engines.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	23/02/26	28/02/26	02	Warehouse Location and the GRG Multistart and Evolutionary Solver Engines.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
March 2026	02/03/26	07/03/26	02	Penalties and the Evolutionary Solver.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	09/03/26	14/03/26	02	The Traveling Salesperson Problem.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
	16/03/26	21/03/26	02	Revision	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.

	23/03/26	28/03/26	02	Clarification of doubt.	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.
April 2026	30/03/26	04/04/26	02	Revision	Exercise	Lab Sessions, PPT, smart board.	1. Winston, W., Microsoft® Excel® 2010: Data Analysis and Business. 2. Introduction to Management Science: Quantitative Approaches to Decision Making, by David Anderson, Dennis J. Sweeney, Thomas Arthur Williams.

Assessment Rubrics

Component	Max Marks
ISA 1	
ISA 2	
SEE	25