INTERNATIONAL MANAGEMENT INSTITUTE BHUBANESWAR
PGDM [2017-2019]
INFORMATION TECHNOLOGY FOR DECISION MAKING, IS501
Credit (3), Session Duration: 90 minutes
TERM I

Course Outline and Session Plan

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Introduction

The most important responsibility of a manager is to take the right decision on the basis of available information so as to propel the organization in the direction of its goals. The rapid growth of information technology (IT) and its applications has ensured that it plays a pivotal role as the facilitator of decision making. Information technology not only enables the managers to access, prioritize and utilize a wealth of information very quickly and accurately, but also helps in analyzing data for relevant knowledge and useful information that seems beyond our ability to filter and process. The speed and flexibility, it provides, enables organizations to remain competitive and sustainable. Whether integrating the organization through ERP system, developing customer relationship management systems or human resource management system, or executing financial transaction in electronic markets, information technology helps in linking all the different functions together in an integrated way and getting information to decision makers at the right time and in the right format.

The course prepares students to leverage information technology effectively. The course focuses on the opportunities and challenges posed by information technology, how they affect the world and what managers need to know for effective decision making through information technology. Therefore, the purpose of this course is to create an understanding of various software and their applications which aid data analysis and decision making. The course introduces students to data analysis using MS Excel and SPSS. The course endeavors to provide students with hands-on experience on decision making in different domains.

Learning Outcomes:

The specific outcomes of the course are:

- To provide basic concept about role of information technology in managerial decision making. (LO1)
- To provide exposure to commonly used information technology tools. (LO2)
- To gain hands-on experience on software packages like Excel and SPSS for data analysis and decision-making. (LO3)
- To provide exposure to the current and emerging trends in information technology. (LO4)
- To impart the knowledge about creating decision models for marketing, finance, HR and operations management applications using excel and other IT tools. (LO5)

Pedagogy

The sessions will be a blend of interactive lectures, class discussions and will be supplemented by case analysis and exercises. Students should bring their personal laptop and pendrive to the class (for sessions instructed by the faculty).In each session students will have hands-on exercises and through these exercises they will understand application of IT in managerial decision making.

Course Reading Material

Text book

- Wayne L. Winston, *Microsoft Excel 2013: Data Analysis & Business Modeling*, New Delhi: PHI. (DABM)

Reference books

- D. George and P. Mallery, *SPSS for Windows Step by Step: A Simple Study Guide and Reference*, 17.0 Update, 10/e, by Pearson Education. (SWSS)
- Efraim Turban, R.K. Rainer & R. Potter (2009). *Introduction to Information Technology*, New Delhi: Wiley India Pvt. Ltd., 526 pages. (INIT)
- Ramesh behl, *Information Technology for Management*, 2/e, Tata McGrawhill (ITM)
- Paul Cornell*, Accessing & Analyzing Data with MS-Excel*, PHI.
- R. Jennings, *Microsoft Access*, PHI. (MAC)
- Addition handouts/case studies will be provided during the course.

Evaluation Criteria   (in %)

Class participation	10
Assignment	10
Presentation	10
Mid Term	30
End term exam	40
Total	100

*No make-up for missed quiz. Best two out of three quizzes will be considered.

**Class Participation: Students are expected to be sincere in the class in terms of reaching the class on time, solving the class-room cases and exercises properly and submitting assignments on time. They should maintain the decorum inside the class and respect the fellow participants. Mere presence in the class doesn't guarantee full CP marks. Students should actively involve in solving the problems and give their inputs constructively to drive class further in a positive direction.

Session Plan

SESSION	TOPIC	LO Attainment	Readings
1	Topic: **Role of IT in Decision Making Process and Introduction to Excel** Objectives: To learn • Introduction to Information Technology • Role of IT in decision making and analysis • Importance of IT • Understanding various data analysis software and their features • Data and Information • Value of Information • Basic introduction to MS excel, use of worksheet functions, performing calculations and formatting data	LO1 & LO2	R: Pages 1-24 from Chapter 1 of INIT R: Pages 1-32 from Chapter 1 of ITM
2-3	Topic: **Role of Excel in helping and facilitating Decision Making** Objectives: To learn • Range Names • Index Function • Various reference types and their relevance • Importing external data from text file & internet • Conditional Formatting • Creating various charts and learning their use • Use of **Analysis ToolPack**	LO1	R: Chapter 1, 3, 23, 52 from DABM
4-7	Topic: **Creating Decision models for marketing applications** Objectives: To learn marketing applications through • Sorting and Filtering data • Data Subtotal • Use of Paste Special Command • Constructing PivotTable in excel • IF Functions	LO1 & LO3	R: Chapters 24, 49, 51, 5, 13, 43, 11, 2, 16, 17, 18 from DABM

	• Lookup Functions • Text Functions • Solving business problem using What-if analysis in excel : -Goal Seek -What-if analysis using Data Tables -Sensitivity analysis using Scenarios		
8-10	Topic: **Creating decision models through analysis tool pack** Objectives: To learn analysis applications through • Consolidating Data • Histograms • Solving business problems using Analysis ToolPack • Regression and other Data Analysis methods • T – test, ANOVA	LO3 & LO4	R: Chapter 41, 50, 56,60 from DABM
11	Topic: **Creating decision models for Operations Management applications** Objectives: • To learn use of Excel in Operations Management • To solve business problem related to Operations Management • Optimization using **Excel Solver** • Solving Transportation Problem using Excel Solver	LO5	R: Chapter 28, 30 and 31 from DABM
12-13	Topic: **Creating decision models for Financial applications** Objectives: • To use Excel for applications in the area of Financial Management	LO3 & LO5	R: Chapter 7, 8, 9 from DABM
14-16	**Business Forecasting & Monte Carlo Simulation** Objectives: • Learning Monte Carlo Simulation	LO4	R: Chapter 69 from DABM
17-20	Topic: **An overview of SPSS for Windows & Creating graphs; Calculating measures of Central Tendency and Dispersion** Objectives: To learn • Managing and entering data in SPSS • Listing, Selecting and Sorting cases • Computing new variables • Recording variables • Exploring and analyzing data	LO3	R: Chapters 1, 3, 5, 6, 10, 11, 12 of SWSS

| | | Merging files Graphical representation of frequencies – bar chart, pie chart, histogram Determining measures of Central Tendency and Measures of Dispersion Data Analysis through t test and ANOVA | | |

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