INTERNATIONAL MANAGEMENT INSTITUTE BHUBANESWAR
PGDM [2018-2020]
INFORMATION TECHNOLOGY FOR DECISION MAKING, IS501
Credit (2), Session Duration: 60 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 learning outcomes of the course are:

1. To provide basic concept about role of information technology in managerial decision making. (LO1)
2. To gain hands-on experience on software packages like MS Excel and SPSS for data management, data analysis and decision-making. (LO2)
3. To impart the knowledge in excel about creating decision models for marketing applications. (LO3)
4. To create decision models in excel through analysis tool pack. (LO4)
5. To create Business Forecasting & Monte Carlo Simulation models in excel. (LO5)

Pedagogy

The sessions will be a blend of interactive lectures, class discussions and will be supplemented by case analysis and exercises. 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

Books

- Wayne L. Winston, *Microsoft Excel 2016: Data Analysis & Business Modeling*, New Delhi: PHI. (DABM)
- 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:

Evaluation Components	Marks	LO attainment
Class participation	10	LO2
Assignment	10	LO5
Presentation	10	LO2, LO3, LO4
Mid Term Examination	30	LO1, LO2, LO3
End Term Examination	40	LO3, LO4, LO5
Total	100	

**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	Learning Outcomes	Readings
1	Topic: **Role of IT in Decision Making Process** Objectives: To learn • Introduction to Information Technology • Components of IT • Role of IT in decision making and analysis • Importance of IT • Basic introduction to MS excel, use of worksheet functions, performing calculations and formatting data • Range Names	Understanding the basics of IT and its role in decision making. Learning basics of MS Excel.	R: Pages 1-24 from Chapter 1 of INIT R: Pages 1-32 from Chapter 1, 2 of ITM R: Chapter 1 of DABM Case: Alpha Company Ltd.
2 – 3	Topic: **Introduction to Excel and Role of Excel in helping and facilitating Decision Making** Objectives: To learn • IF Function • Sorting and Filtering data • Various reference types and their relevance	Understanding the worksheet formulas and conditional statements. Knowledge of different Cell referencing.	R: Chapter 3, 11, 12, 25, 49 from DABM
4 – 5	Topic: **Conditional Formatting** • Build in • Logical Formula	Detailed understanding of conditional formatting. Formatting the data of a worksheet based on various conditions	R: Chapter 24 from DABM
6	Topic: **Data Representation and Analysis** Objectives: To learn • Creating various charts and learning their use • Activation of **Analysis ToolPack**	Understanding different charts and their usage.	R: Chapter 52, 42 from DABM
7 – 9	Topic: **Creating Decision models for marketing applications** Objectives: To learn marketing applications through • Use of Paste Special Command • Constructing PivotTable in excel	Imparting the knowledge about creating decision models for marketing applications. Understanding	R: Chapters 14, 43 from DABM

		the role of pivot table in crucial business decisions.	
10 – 12	Topic: **Creating Decision models for marketing applications** Objectives: To learn marketing applications through • 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	imparting the knowledge about creating decision models for marketing applications. Use of what – if analysis and importance of lookup function in excel.	R: Chapter 3, 6, 17, 18, 19 from DABM
13 – 14	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	Understanding the Analysis toolpack	R: Chapter 42, 50, 56 from DABM
15 – 17	**Business Forecasting & Monte Carlo Simulation** Objectives: To learn • Random Numbers Generation • Random Number allocation with probability • Learning Monte Carlo Simulation	Understanding business forecasting using Monte Carlo Simulation	R: Chapter 74, 75, 76 from DABM
18 – 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 • Recode into different variable and same variable • Exploring and analyzing data • Merging files • Split files	Data management using SPSS	R: Chapters 1, 3, 5, 6, 10 of SWSS

	• Entering multiple-choice data in SPSS • Determining measures of Central Tendency and Regression		

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