

MODULE: BUSINESS SYSTEMS MODELING

Semester: II (Spring)
Stage: III
Number of Credits: 4 semester credits/6 quarter units
Theme: Information Technology
Assessment Weighting: 40% Coursework
60% Examination

INTRODUCTION

This module is designed to develop the student's ability to use computer based models of business to support effective management.

AIMS

The aims of this module are:

- To develop students ability to build computer based models of business operations to support effective management decision making
- To enhance students ability to apply analytical techniques to business problems.
- To provide students with the tools to identify modeling as a potent decision support tool for the overall business.
- To develop students ability to evaluate models and forecasts in Business processes

LEARNING OUTCOMES

On completion of this module, students will be able to:

- Use technology to assist in building models of Business processes
- Evaluate modelling techniques and develop forecasts from them
- Develop simulations and analyse events using these
- Critically evaluate the use of IT in the support of management decision making
- Use Business modelling in the field of accounting to ensure proper financial control

SYLLABUS

- Financial Modelling and Forecasting
- Financial Analysis
- Evaluating Assets, Liabilities, and Potential Acquisitions
- Financial Forecasting

Financial Modelling

Business Forecasting
Simulation
Queueing Theory
Project Management
Linear Programming

Management Support Systems
Characteristics and Benefits of MIS
Online Analytical Processing (OLAP)
Overview of Decision Support Systems
Group Decision Support Systems
Executive Information Systems
Fundamentals of Expert Systems

Accounting Information Technology
Modelling Business Processes
Accounting Information System Architecture
Business and Information Process Rules, Risks, and Controls
Business Solutions

Business Modelling Applications
Overhead Allocation Models
Marketing Mix Models.
Inventory Models
Customer Relationship Management
Value Chain Management

TEACHING AND LEARNING METHODS

This module will be delivered through a mix of lecture, tutorials and practical lab workshops. Case study analysis will also be used to analyse theoretical aspects of Business Systems Modelling. Individual lab based projects will require students to develop practical models of business situations. This will involve analysing, modelling and developing forecasts. The students will be introduced to the up to date technologies in the field.

ASSESSMENT METHODS

The assessment method for the module will involve both a written examination and practical work. Practical work will consist of the application of theory and technology to practical business situations.

PRIMARY READING LIST

Handbook of Financial Analysis, Forecasting and Modelling Shim J K, Siegel J G
Prentice Hall 2001

Introduction to Simulation and Risk Analysis Evans J R, Olsen D L Prentice Hall 2001

RECOMMENDED READING LIST

Operations Research : An Introduction, 7th Edition Taha H A, Prentice Hall, 2002

Discrete Event Simulation 3rd Edition Banks J Prentice Hall 2000

Decision Support Systems and Intelligent Systems Turban E, Aronson A E 6th Edition
Prentice Hall 2000

Accounting Information Technology, and Business Solutions 2nd Edition Hollander A et
al McGraw Hill 1999

Methods for Business Analysis Forecasting : Texts and Cases Tryfos P Wiley 1997