

DECISION SUPPORT AND BUSINESS INTELLIGENCE APPLICATIONS – MSIS4263

Syllabus

1. GENERAL INFORMATION:

Instructor name:

Email:

Credit: 3 (3 lecture)

2. COURSE INFORMATION:

- Course description:

Business intelligence systems combine operational data with analytical tools to present complex and competitive information to planners and decision-makers. The objective is to improve the timeliness and quality of inputs to the decision process. BI (Business Intelligence) is used to understand the capabilities available in the firm; the state of the art, trends, and future directions in the markets, the technologies, and the regulatory environment in which the firm competes; and the actions of competitors and the implications of these actions.

- Course objectives:

There are three objectives for this course. They are:

- 1) To understand the effect of DSS/BI (Decision Support Systems and Business Intelligence) on an organization,
- 2) To understand the strategic advantage of DSS/BI, and
- 3) To acquire the skills necessary for the effective and strategic application of DSS/BI technology to assist in the decision making process.

After successfully completing this course, a student should be able to:

1. Explain Business Intelligence(BI) and its role in providing a competitive advantage
2. Explain the characteristics and goal of Data Warehousing (DW).
3. Explain the characteristics and goal of Data Mining (DM).
4. Explain the characteristics and goal of Text Mining (TM).
5. Explain the characteristics and goal of Web Mining (WM)
Employ data analysis tools used in DM to in assist in the decision making process

- Prerequisite: MSIS 4013 (Database system design, management and administration)

3. BOOK AND MATERIALS:

- Required textbook:

Business Intelligence: A Managerial Perspective on Analytics (3rd Edition) by Ramesh Sharda, Dursun Delen and Efraim Turban, Pearson Pub., 2013.

4. GRADING PROCEDURES:

Assignments, Class attendance/participation:.....	30%
Computer-based testing:	30%
Final Examination:	40%

5. COURSE OUTLINE:

Week	Topics	Assignments
1	Intro to Business Intelligence	
2	Data Warehousing	
3	Business Performance Management	
4	Text, & Web Mining	
5	BI Emerging Trends	
6	Introduction to Data Mining	
7	Overview of the Data Mining Process	
8	Assignments Lecture 3: Handout Problems 1 & 2 Toyota Corolla Data , Boston Housing Data and Cereals Data File	
9	Assignment Multiple Linear Regression	
10	Assignment Predicting Boston Housing Prices	
11	Assignments Personal Loan Acceptance Automobile Accidents	
12	Assignments Competitive Auctions on eBay.com Predicting Delayed Flights Predicting Prices of Used Cars	
13,14, 15	Student Presentations Final Exam.	

6. COURSE REQUIREMENTS:

- Programming Assignments: Exercises are in corresponding sections of the required book.
- Projects or Team Class Projects: Projects are given by the instructor after finishing a chapter.
- Class attendance/participation: Evaluated by checking in the Attendance Book
- Final Examination: Students are directly tested and automatically marked on computers.

7. ACADEMIC INTEGRITY POLICIES:

- Student may not use Vietnamese language in class, or will be reduced 2% final marks
- Be punctual to come and leave the class.
- Maximum cancellation time per semester is 6 hours per class.

8. COMMENTS AND NOTES:

- Preparation for Class: It is expected that the students read related chapter in textbook and lecture noted before each class. This will help to capture the topics presented and discussed during class hours.
- Use of Class Time: Class time will be used mainly for lectures and discussions. A small part of class hours is used for testing. House works will be discussed on individual basis.
- Class Attendance: Due to the broad range of topics discussed throughout the course and their inter-relationship, it is requested that the students should attend the class regularly.

Instructor's Signature