BU660 Business Intelligence for Management Decision Making

Instructor Information	Haigang Li Home Institution: Shanghai Jiao Tong University Email: lihg@sjtu.edu.cn Office Hours: Determined by Instructor		
Term	December 13, 2021 - January 7, 2022	**Credits**	4 units
Class Hours	Monday through Friday, 120 minutes per teaching day		
Discussion Sessions	2.5 hours each week, conducted by teaching assistant(s)		
Total Contact Hours:	66 contact hours (1 contact hour = 45 mins, 3000 mins in total)		
Required Texts (with ISBN):	Business intelligence, analytics, and data science: a managerial perspective, 4th Edition, by Ramesh, Dursun and Efraim (Pearson, 2021), ISBN-13: 9780137305711		
Prerequisite:	N/A		

Course Overview

In recent times, Business intelligence (BI) has become a major source of competitive advantage in the Information Age and therefore a popular topic in the management area. Companies such as IBM, SAP, Microsoft, and others are creating new organizational units focused on analytics that help the business become more effective and efficient in their operations. It gives an overview of how business intelligence technologies can support decision making across any number of business sectors, such as corporate strategy, performance, and competitiveness and broadly encompass decision support systems, business intelligence systems, and visual analytics.Topics include descriptive analytics, predictive analytics, and prescriptive analytics. The updated technological trend will also be displaced to all the students.

In this course, you will gain the knowledge and skills for using data for business intelligence purposes and for working as a business intelligence developer, and also you will gain the experience in using a commercial BI platform, combined with in-depth analytical skills, which will enable students who completed the course to help any organization to get more insights from its data and make a practical recommendation to the organization. This course does not require programming experience; it's suitable for both current BI practitioners and the ones who are interested in and eager to create value by BI.

Course Goals

1. Form an accurate awareness of the current and emerging BI-related trends in business Apply the fundamental concepts and know the proper analytics model to solve the data-related challenges in any organizational setting

2. Identify and analyse issues, challenges, and solutions in a business intelligence system from the business rather than a technical perspective

3. Able to retrieve, analyze, and get insights from the unstructured data, including text, web, and social media data

4. Carry out small-scale data analysis and visualization project in a real-life organizational setting, make practical and creative solutions based on the BI system, and present the outcomes orally and in slides

5. Form an accurate awareness of the current and emerging BI-related trends in business

Grading Policy

Assessment	30%
Project Report	40%
Attendance	10%
Participation	20%

Grading Scale

Number grade	Letter grade	GPA
90-100	A	4.0
85-89	A-	3.7
80-84	B+	3.3
75-79	B	3.0
70-74	B-	2.7
67-69	C+	2.3
65-66	C	2.0
62-64	C-	1.7
60-61	D	1.0
≤59	F (Failure)	0

Assessment

Throughout the course, we will complete various in-class activities. These exercises are tailored towards helping you further understand and apply the key concepts covered in the textbook. No makeup assignments are allowed.

Project Report

This project requires students to design small-scale data analysis and visualisation application for a real-life organisation, and submit a project report.

Attendance & Participation

Class attendance and participation in session activities are required and rated. We welcome discussion in the class.

Class Schedule

Date	Lecture	Readings
Day 1	Introduction and Overview of Business Intellidence	Chapter 1
Day 2	Nature of data, statistical modeling	Chapter 2
Day 3	Visualization	Chapter 2
Day 4	Business Intelligence and Data Warehousing	Chapter 3
Day 5	Case study-1	
Day 6	Data Mining Process, Method, and Algorithms	Chapter 4
Day 7	Data Mining Process, Method, and Algorithms	Chapter 4
Day 8	Text Analytics	Chapter 5
Day 9	Web and Social Media Analytics	Chapter 5
Day 10	Case study-2	
Day 11	Optimization and Simulation	Chapter 6
Day 12	Ethics for Business Intelligence	Chapter 8
Day 13	Big Data Concepts and Tools	Chapter 7
Day 14	Case study-3	
Day 15	Developing the Business Case for Business Intelligence	All
Day16	Emergent Techonology for Business Intelligence	Chapter 8
Day 17	Case study-3	
Day 18	Guest Lecture	
Day 19	Advanced topic of the business analysis	
Day 20	Presentation	