City University of Hong Kong
Course Syllabus

offered by Department of Information Systems
with effect from Semester A 2024 / 2025

Part I Course Overview

Course Title:	Business Intelligence Applications
Course Code:	IS6321
Course Duration:	One Semester (13 weeks)
Credit Units:	3
Level:	P6
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

This course aims to develop students' knowledge and skills to carry out real-world business intelligence tasks professionally by emphasising the use of analytics tools and the management of these tools.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Describe the basic concepts of business intelligence and analytics to support business operations and effectively use emerging technologies for business purposes.	20%			
2.	Design and apply the analytical techniques and technologies of business intelligence and analytics to find solutions for local and international business problems.	30%	✓	✓	
3.	Manage analytical tools and big data for effective and efficient discovery of business intelligence in a technology-driven economy.	35%	✓	✓	✓
4.	Demonstrate good communication and interpersonal skills in proposing and presenting appropriate strategies for business intelligence.	15%			
		100%			

A1: *Attitude*
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: *Ability*
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: *Accomplishments*
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Learning and Teaching Activities (LTAs)

(LTAs designed to facilitate students' achievement of the CILOs.)

Seminar : 3 hours per week (preferably to be conducted in computer lab)

LTA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
LTA1. Lecture	Students will learn the concepts of business operation support and intelligence and its web- based extensions to solve business problems, and the design, implementation, integration, and management of business intelligence systems for real-world business applications.	✓	✓	✓		
LTA2. Case Studies	Students will learn and discuss the business intelligence-related problems and the specific applications of proven problem solving techniques as well as cutting-edge technologies for business support and intelligence concepts.	✓	✓	✓	✓	
LTA3. Demonstrations and hands-on exercises	Students will conduct hand-on exercises to demonstrate and practice the application of business data analytical techniques to business problems.		✓	✓	✓	
LTA4. Practical	Students will develop the hands-on skills for solving business problems by adopting the business intelligence skills just taught.		✓	✓	✓	
LTA5. On-Line Discussion	Students will conduct an on-line discussion for self reflection and sharing concepts, techniques, and methods for business intelligence issues among students within or after formal classes.	✓	✓		✓	

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting	Remarks
	1	2	3	4		
Continuous Assessment: 60%						
AT1. Seminar Participation and Exercises Each seminar consists of lecture, exercises, small group discussions, self reflection, or student presentations to assess students' understanding of the chosen topics and their abilities to apply their skills.	✓	✓	✓		20%	
AT2. Group Project A group project, which includes a project report and presentation, will be allocated to let students practise on the skills acquired.		✓	✓	✓	40%	
Examination: 40% (duration: one 2-hour exam)						
AT3. Examination A written examination is developed to assess student's competence level of the taught subjects.	✓	✓	✓		40%	
					100%	

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Applicable to students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Seminar Participation and Exercises	Ability to accurately and profoundly describe all important requirements and all key concepts for business intelligence and analytics; effectively compare and discriminate among the key concepts;	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to effectively and accurately propose a comprehensive management plan and methodology on how intelligence data could be collected and analyzed to improve the outcomes of the business initiatives;	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Group Project	Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to effectively and accurately propose a comprehensive management plan and methodology on how intelligence data could be collected and analyzed to improve the outcomes of the business initiatives;	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to show well-rounded knowledge in identifying most appropriate existing technique for respective system design and implementation problems;	High	Significant	Moderate	Basic	Not even reaching marginal levels

3. Examination	Ability to accurately and profoundly describe all important requirements and all key concepts for business intelligence and analytics; effectively compare and discriminate among the key concepts;	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to effectively and accurately propose a comprehensive management plan and methodology on how intelligence data could be collected and analyzed to improve the outcomes of the business initiatives;	High	Significant	Moderate	Basic	Not even reaching marginal levels

Applicable to students admitted from Semester A 2022/23 to Summer Term 2024

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
1. Seminar Participation and Exercises	Ability to accurately and profoundly describe all important requirements and all key concepts for business intelligence and analytics; effectively compare and discriminate among the key concepts;	High	Significant	Moderate	Not even reaching marginal levels
	Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;	High	Significant	Moderate	Not even reaching marginal levels
	Capability to effectively and accurately propose a comprehensive management plan and methodology on how intelligence data could be collected and analyzed to improve the outcomes of the business initiatives;	High	Significant	Moderate	Not even reaching marginal levels
2. Group Project	Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;	High	Significant	Moderate	Not even reaching marginal levels

	Capability to effectively and accurately propose a comprehensive management plan and methodology on how intelligence data could be collected and analyzed to improve the outcomes of the business initiatives;	High	Significant	Moderate	Not even reaching marginal levels
	Ability to show well-rounded knowledge in identifying most appropriate existing technique for respective system design and implementation problems;	High	Significant	Moderate	Not even reaching marginal levels
3. Examination	Ability to accurately and profoundly describe all important requirements and all key concepts for business intelligence and analytics; effectively compare and discriminate among the key concepts;	High	Significant	Moderate	Not even reaching marginal levels
	Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;	High	Significant	Moderate	Not even reaching marginal levels
	Capability to effectively and accurately propose a comprehensive management plan and methodology on how intelligence data could be collected and analyzed to improve the outcomes of the business initiatives;	High	Significant	Moderate	Not even reaching marginal levels

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

Introduction to Business Intelligence

- What is business intelligence and analytics, and how to apply and manage analytics tools to achieve desirable business outcomes?

Business Intelligence Data Analytics

- How can we collect business big data for analysis purposes?
- What are analytics for web, finance, marketing, mobile and social, and how are they applied?
- How to identify business intelligence metrics and how to measure them?

Emerging Trends and Concerns of Business Intelligence

- How have these technologies been enlarged by the various online and offline platforms?
- What are the cutting-edge technologies for business support and applications?

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Nil

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	Andrew W. Lo, Hedge Funds: An Analytic Perspective, Princeton University Press, 2010.
2.	Arvind Sathi, Big Data Analytics: Disruptive Technologies for Changing the Game, Mc Press, 2013.
3.	Avinash Kaushik, Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity, Sybex, 2009.
4.	Ben Waber, People Analytics, FT Press, 2013.
5.	Eric Siegel, Predictive Analytics, Wiley, 2013.
6.	Kim Dushinski, The Mobile Marketing Handbook, 2/e, Information Today, Inc., 2012.
7.	Paul W. Farris, Neil T. Bendle, Philip E. Pfeifer and David J. Reibstein, Marketing Metrics – The Definitive Guide to Measuring Marketing Performance, 1/e Wharton School Publishing, 2010.
8.	Thomas H. Davenport, Enterprise Analytics: Optimize Performance, Process, and Decisions Through Big Data, FT Press, 2012.
9.	Tim Ash, Rich Page and Maura Ginty, Landing Page Optimization – The Definitive Guide to Testing and Tuning for Conversions, 1/e, Sybex, 2012.
10.	Victoria Lemieux, Financial Analysis and Risk Management: Data Governance, Analytics and Life Cycle Management, Springer, 2012.