IS6321: BUSINESS INTELLIGENCE APPLICATIONS

Effective Term
Semester B 2024/25

Part I Course Overview

Course Title
Business Intelligence Applications

Subject Code
IS - Information Systems
Course Number
6321

Academic Unit
Information Systems (IS)

College/School
College of Business (CB)

Course Duration
One Semester

Credit Units
3

Level
P5, P6 - Postgraduate Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

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.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-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	x	x	
3	Manage analytical tools and big data for effective and efficient discovery of business intelligence in a technology-driven economy.	35	x	x	x
4	Demonstrate good communication and interpersonal skills in proposing and presenting appropriate strategies for business intelligence.	15			

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.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	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.	1, 2, 3	

2	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.	1, 2, 3, 4	
3	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.	2, 3, 4	
4	Practical	Students will develop the hands-on skills for solving business problems by adopting the business intelligence skills just taught.	2, 3, 4	
5	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.	1, 2, 4	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	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.	1, 2, 3	20	
2	Group Project A group project, which includes a project report and presentation, will be allocated to let students practise on the skills acquired.	2, 3, 4	40	

Continuous Assessment (%)

60

Examination (%)

40

Examination Duration (Hours)

2

Additional Information for ATs

Examination
A written examination is developed to assess student's competence level of the taught subjects.

Assessment Rubrics (AR)

Assessment Task

Seminar Participation and Exercises (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Ability to accurately and profoundly describe all important requirements and all key concepts for business intelligence and analytics; effectivelycompare and discriminate among the key concepts;

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

Seminar Participation and Exercises (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Capability to reasonably and effectively formulate and discriminate the business intelligence analytical techniques and technologies to solve given business problems;

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Assessment Task

Seminar Participation and Exercises (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

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;

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(A+, A, A-) High

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Assessment Task
Group Project (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
Ability to show well-rounded knowledge in identifying most appropriate existing technique for respective system design and implementation problems;

Excellent
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Part III Other Information

Keyword Syllabus

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?

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
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.