The Fundamentals of Business Big Data Course Syllabus

<u>Course Number:</u>	AX701A
<u>Course Name:</u>	The Fundamentals of Business Big Data
<u>Instructors:</u>	Yang Hualing
Students:	Accounting, Audit, Financial Management, Business Administration, and Human Resource Management.
<u>Required Text:</u>	2022 edition, 2023 edition
<u>Course Description:</u>	Business Big Data Fundamentals is a cutting-edge course in business majors. It comprises three sections with nine teaching units, including basic knowledge (Chapters 1-3), intermediate knowledge (Chapters 4-8), and extended knowledge (Chapter 9). In the intermediate knowledge section (Chapters 4-8), each teaching unit is presented in the form of project tasks published by the instructor on VDC.PUB. Students are required to complete the design of visualization works based on the built-in visual design guidance documents within each teaching unit, and then prepare the teaching samples accordingly. The Business Big Data Fundamentals course utilizes Power BI as the fundamental visualization design tool, applying business expertise through nine practical application scenarios in the visualization design curriculum. It bridges the gap between technical courses and professional courses, and achieves a thorough understanding of design concepts through the aid of teaching samples, thus also fulfilling the assessment requirements for technical courses.

Topic Outline:		Hours/Minutes
Chapter 1 Introduction	1.The Concept of Big Data 2.Characteristics of Big Data 3.Types of Big Data 4.Business Big Data	2
Chapter 2	Big Data Thinking 1.Thinking Patterns 2.Fundamentals of Data Thinking 3. Principles of Data Thinking 4. Patterns of Data Thinking	2
Chapter 3	Business Applications of Big Data 1.Applications of Big Data in the Government Sector 2.Applications of Big Data in the Commercial Sector 3.Applications of Big Data in Non-commercial Sectors	2
Chapter 4	Commercial Big Data Collection 1.Principles of Data Collection 2.Sources of Commercial Data 3.Methods of Commercial Big Data Collection 4.Tools for Commercial Big Data Collection	4

Chapter5	Processing of Business Big Data	4	
	1.Inspection of Business Big Data		
	2. Cleaning of Business Big Data		
	3. Transformation of Business Big Data		
	4. Integration of Business Big Data		
Chaptre6	Business Big Data Analysis	4	
	1.Understanding of Business and Data		
	2.Analysis Methods for Business Big Data		
	3.Analysis Process for Business Big Data		
	4. Common Pitfalls in Data Analysis		
Chapter7	Visualization of Business Big Data	4	
	1.Overview of Data Visualization		
	2.Case Studies of Data Visualization Charts		
	3.Tools for Data Visualization		
	4.Basic Process of Data Visualization		
Chapter8	Comprehensive Experiments on Business Big Data	8	
	1. Basic Operations of Power BI		
	2.Visual Design of Balance Sheet		
	3. Visual Design of Comprehensive Performance Evaluation		
	4.Visual Design of Macroeconomic Analysis		
Chapter9	Data Literacy	2	
	1.Data Security		
	2.Data Governance		
	3.Data Ethics		

Summary of The Fundamentals of Business Big Data		Hours/Minutes
a.	Introduction	2
b.	Big Data Thinking	2
c.	Business Applications of Big Data	2
d.	Commercial Big Data Collection	4
e.	Processing of Business Big Data	4
f.	Business Big Data Analysis	4
g.	Visualization of Business Big Data	4
h.	Comprehensive Experiments on Business Big Data	8
i.	Data Literacy	2
	Total Estimated CPC Coverage Hours	32