

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

1<sup>st</sup> Year, Semester 1

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	會計學(一)	
	英(E)	Accounting(I)	
課程目標 (Course Goal)	The major goal of this course is to help students understand the basic principles and theories of accounting.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Accounting in Business</li> <li>2. Analyzing and Recording Transactions</li> <li>3. Adjusting Accounts and Preparing Financial Statements</li> <li>4. Completing the Accounting Cycle</li> <li>5. Accounting for Merchandising Operations</li> <li>6. Inventories and Cost of Sales</li> <li>7. Accounting Information Systems</li> <li>8. Cash and Internal Controls</li> <li>9. Accounting for Receivables</li> <li>10. Long-Term Assets</li> <li>11. Current Liabilities</li> <li>12. Accounting for Partnerships</li> <li>13. Accounting for Corporations</li> <li>14. Long-Term Liabilities</li> <li>15. Investments and International Operations</li> <li>16. Statement of Cash Flows</li> <li>17. Analysis of Financial Statements</li> <li>18. Capital Budgeting and Managerial Decisions</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	經濟學(一)	
	英(E)	Economics(I)	
課程目標 (Course Goal)	<p>The major goal of this course is to help students understand the basic principles and theories of microeconomics. After completing this course, students will be able to</p> <ol style="list-style-type: none"> <li>1. Think like an economist and have an understanding of microeconomics vocabulary.</li> <li>2. Use the models and methods of economics to examine issues related to economics.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Interdependence and The Gains From Trade</li> <li>3. The Market Forces of Supply and Demand</li> <li>4. Elasticity and Its Application</li> <li>5. Supply, Demand and Government Policies</li> <li>6. Consumers, Producers, and The Efficiency of Markets</li> <li>7. Application: The Cost of Taxation</li> <li>8. Externalities</li> <li>9. Public Goods and Common Resources</li> <li>10. The Cost of Production</li> <li>11. Firms In Competitive Markets</li> <li>12. Monopoly</li> <li>13. Oligopoly</li> <li>14. Monopolistic Competition</li> <li>15. The Markets For the Factors of Production</li> <li>16. The Theory of Consumer Choice</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	程式設計(一)	
	英(E)	Programming(I)	
課程目標 (Course Goal)	This course provides students a coding training with C++ programming language from the beginning. There are numerous program practices in the course. No prior programming knowledge is required or assumed.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to C++ Programming</li> <li>2. Overview of Programming and Problem Solving</li> <li>3. C++ Syntax and Semantics, and the Program Development Process</li> <li>4. Numeric Types, Expressions, and Output</li> <li>5. Program Input and the Software Design Process</li> <li>6. Conditions, Logical Expressions, and Selection Control Structures</li> <li>7. Looping</li> <li>8. Additional Control Structures</li> <li>9. Arrays</li> <li>10. Pointer</li> <li>11. Functions and Recursion</li> <li>12. Scope, Lifetime, and More on Functions</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	微積分(一)	
	英(E)	Calculus(I)	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning fundamental concepts of Calculus</li> <li>2. To make connections between what students are learning and how they may apply that knowledge</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Before Calculus</li> <li>2. Limits and Continuity</li> <li>3. The Derivative</li> <li>4. Topics in Differentiation</li> <li>5. The Derivative in Graphing and Applications</li> <li>6. Integration</li> <li>7. Applications of the Definite Integral in Geometry, Science and Engineering</li> <li>8. Principles of Integral Evaluation</li> <li>9. Mathematical Modeling with Differential Equations</li> <li>10. Infinite Series</li> <li>11. Parametric and Polar Curves; Conic Sections</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	計算機概論	
	英(E)	Introduction To Computer	
課程目標 (Course Goal)	1. Understand the history, theory and architecture of a computer system 2. Understand the computer system application 3. Training innovative applications in the field of computer		
內容綱要 (Course Outline)	1. Introduction 2. Number Systems 3. Data Storage 4. Operations on Data 5. Computer Organization 6. Operating Systems 7. Algorithms, Programming Languages 8. Data Structure 9. Abstract Data Types 10. File Structure 11. Databases 12. Software Engineering 13. Computer Networks and Internet 14. Security 15. Artificial Intelligence		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

1<sup>st</sup> Year, Semester 2

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	程式設計(二)	
	英(E)	Programming (II)	
課程目標 (Course Goal)	This course provides students a coding training with C++ programming language from the beginning. There are numerous program practices in the course. Prior programming knowledge in course programming (I) is required .		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. User-Defined Data Types</li> <li>2. Template</li> <li>3. Introduction to Object-oriented Programming</li> <li>4. Class Design and C++ Syntax</li> <li>5. Member data and Member Function</li> <li>6. Information Hiding and Polymorphism</li> <li>7. Private, Protected, Public, and Static</li> <li>8. Inheritance</li> <li>9. Overriding and Overloading</li> <li>10. Dynamic Binding</li> <li>11. Friend Function and Friend Class</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	商業資料通訊	
	英(E)	Business Data Communications	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduce the concept and principle of data communication network.</li> <li>2. Guide students how to apply data communication network efficiently.</li> <li>3. Teach students how to construct and manage the communication network and apply it in business transactions.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Living in a Network Centric World</li> <li>2. Communicating over the Network</li> <li>3. Application Layer Functionality and Protocols</li> <li>4. OSI Transport Layer</li> <li>5. OSI Network Layer</li> <li>6. Addressing the Network - IPv4</li> <li>7. VLSM and CIDR</li> <li>8. Planning and Cabling Networks</li> <li>9. Data Link Layer and OSI Physical Layer</li> <li>10. Ethernet</li> <li>11. Configuring and Testing Your Network</li> <li>12. Introduction to Routing and Packet Forwarding</li> <li>13. Static Routing</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	管理數學	
	英(E)	Management Mathematics	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning fundamental concepts of Management Mathematics</li> <li>2. To make connections between what students are learning and how they may apply that knowledge</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Linear equations and graphs</li> <li>2. Functions and graphs</li> <li>3. Mathematics of Finance</li> <li>4. Systems of linear equations; matrices</li> <li>5. Linear inequalities and linear programming</li> <li>6. Logic, Sets, and counting</li> <li>7. Probability</li> <li>8. Probability distributions</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	學年版本
課程名稱 (Course Name)	中(C) 資訊管理導論 英(E) <b>Introduction to Information Management (IM)</b>
課程目標 (Course Goal)	The goal of the course is to provide students with overview of general information management concepts in a rapidly changing environment.
內容綱要 (Course Outline)	1. Introduction 2. IT infrastructure and support systems 3. Data management 4. Networks management 5. IT Security 6. E-business and e-commerce 7. Web 2.0 and social media 8. Operational planning and control systems 9. Enterprise information systems 10. Business intelligence
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)
修訂備註	(說明修訂原因或背景)

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	企業概論	
	英(E)	Introduction to Business	
課程目標 (Course Goal)	This course is designed as a survey course that will expose students to business terminology, concepts, and current business issues. By the end of the course, students should be able to identify the main functions of formal organizations, recognize the various challenges faced by today's managers and give examples of organizations operating in the line functions and staff functions.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Types of Business</li> <li>3. Business Functions and Environment</li> <li>4. Operations Management</li> <li>5. Marketing Management</li> <li>6. Managing Human Resources</li> <li>7. Financial Management</li> <li>8. Managing Change and Innovation</li> <li>9. Managing Communication and Information</li> <li>10. Case Study</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	電子商務概論	
	英(E)	Introduction to Electronic Commerce	
課程目標 (Course Goal)	<p>The main purpose of this course is to introduce the basic concepts of e-commerce, and to understand how e-commerce is affecting business enterprises, governments, and consumers in general.</p> <p>Upon completing this course, students will be able to</p> <ol style="list-style-type: none"> <li>1. Understand the foundations of e-commerce.</li> <li>2. Understand the applications, technologies, and tools which are used to conduct business on the Internet.</li> <li>3. Identify key emerging trends in e-commerce.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to E-commerce</li> <li>2. E-commerce Business Models and Concepts</li> <li>3. Technology Infrastructure for E-commerce</li> <li>4. E-commerce Security and Payment</li> <li>5. E-commerce Marketing and Advertising Concepts</li> <li>6. Ethical, Social, and Political Issues in E-commerce</li> <li>7. Online Retailing and Services</li> <li>8. Auctions in E-commerce</li> <li>9. Online Advertising</li> <li>10. B2B E-commerce and Supply Chain</li> <li>11. Social Commerce</li> <li>12. Mobile Commerce</li> <li>13. New Trends in E-commerce</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	多媒體概論	
	英(E)	Introduction to Multimedia	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduction of the basic concept and technique of multimedia.</li> <li>2. Digital Audio and Digital music</li> <li>3. Introduction of Adobe Flash animation.</li> <li>4. Multimedia term project</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Course introduction</li> <li>2. Digital audio editing Adobe audition</li> <li>3. Digital music and MIDI Cakewalk</li> <li>4. Basic concept of image processing</li> <li>5. Photoshop</li> <li>6. Flash animation</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

2<sup>nd</sup> Year, Semester 3

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	商用英文實務(一)	
	英(E)	English for Business Practice(I)	
課程目標 (Course Goal)	Students will have the knowledge of English used in business situations, telephoning, negotiations, and trade procedures.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Understanding different English accents</li> <li>2. Understanding various dialogues and monologues</li> <li>3. Analyzing English sentence structure</li> <li>4. Developing reading comprehension strategies</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	統計學(一)	
	英(E)	Statistics(I)	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Understand the basic concept of statistics</li> <li>2. Understand the types of data, data measures and data descriptions</li> <li>3. Understand the probability distributions and sampling methods</li> <li>4. Understand the applications of statistics</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction of data and statistics</li> <li>2. Description – Table and Graph</li> <li>3. Description – data measures</li> <li>4. Probability</li> <li>5. Discrete probability distributions</li> <li>6. Continuous probability distributions</li> <li>7. Sampling and estimates (1)</li> <li>8. Sampling and estimates (2)</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	管理學	
	英(E)	Management	
課程目標 (Course Goal)	By the end of the course, students should be able to identify the principals of managing formal organizations, recognize the various challenges faced by today's managers and give examples of organizations engaging in the management functions of planning, organizing, leading and controlling.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Managers and management</li> <li>2. Introduction to presentation skills</li> <li>3. Foundations of planning</li> <li>4. Foundations of decision making</li> <li>5. Organization design</li> <li>6. Motivating and leading</li> <li>7. Foundations of control</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	資料庫系統管理	
	英(E)	Database Management System	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning fundamental concepts of Database management system</li> <li>2. Learning a small scale database system, e.g. MySQL</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Basic Concepts for Database management system</li> <li>2. Overview of Database languages and architectures</li> <li>3. Data models</li> <li>4. Relational model characteristics</li> <li>5. Introduction to SQL</li> <li>6. Procedural language SQL and advanced SQL</li> <li>7. The entity relational model(ERM)</li> <li>8. The extended entity relational model</li> <li>9. Normalizing database designs</li> <li>10. Distributed databases</li> <li>11. Interacting with databases through the web</li> <li>12. Managing transactions and concurrency</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	資料結構	
	英(E)	Data Structure	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning fundamental concepts of data structures for computer programming</li> <li>2. We use C++ as the programming language</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Basic Concepts for programming</li> <li>2. Basic Concepts of Algorithm Complexity</li> <li>3. Arrays</li> <li>4. Stack and Queue</li> <li>5. Linked List</li> <li>6. Trees</li> <li>7. Graphs</li> <li>8. Sorting</li> <li>9. Hashing</li> <li>10. Priority Queues</li> <li>11. Binary Search Trees</li> </ol>		
備註說明	Good to learn computer programming (1) & (2) first.		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	行銷管理	
	英(E)	Marketing Management	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduction of the concept and theory of marketing management.</li> <li>2. Linking the marketing practice by using abound of case study.</li> <li>3. Cultivate student the ability of Marketing planning and oral presentation.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>12. Essence of marketing management</li> <li>13. Value creation and Customer relation</li> <li>14. Strategic planning and marketing strategy</li> <li>15. Marketing research</li> <li>16. Marketing environment</li> <li>17. Customer behavior analysis</li> <li>18. Consumer buying behavior of organization</li> <li>19. Market segmentation, targeting and positioning</li> <li>20. New product development and innovation management</li> <li>21. Brand management</li> <li>22. Experience marketing</li> <li>23. pricing</li> <li>24. marketing channel</li> <li>25. integrated marketing</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	數位影像處理	
	英(E)	Digital Image Processing	
課程目標 (Course Goal)	Learning Concepts and Technologies of Digital Image Processing		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction basic concepts of digital image processing</li> <li>2. Introduction of Digital Photography and Camera</li> <li>3. Learning how to take a good quality digital image</li> <li>4. Learning Photoshop – a digital image editor</li> <li>5. Learning how to take and edit a digital video</li> <li>6. Learning Premiere – a digital video editor</li> <li>7. Learning basic programming technology for image processing</li> <li>8. Basic Concepts of pattern recognition, including feature detection, image segmentation, object detection, image understanding</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	網路管理	
	英(E)	Network Administration	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduce the concept and principle of data communication network.</li> <li>2. Guide students how to apply data communication network efficiently.</li> <li>3. Teach students how to construct and manage the communication network and apply it in business transactions.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to Dynamic Routing Protocols</li> <li>2. Distance Vector Routing Protocols</li> <li>3. RIP version 1</li> <li>4. RIPv2</li> <li>5. The Routing Table: A Closer Look</li> <li>6. EIGRP</li> <li>7. Link-State Routing Protocols</li> <li>8. OSPF</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	物件導向程式設計	
	英(E)	Object Oriented Programming	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. To understand the concept of object-oriented</li> <li>2. Understand the JAVA programming language</li> <li>3. Learn how to write JAVA</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Eclipse setup</li> <li>2. Object concept</li> <li>3. Encapsulation</li> <li>4. Inheritance</li> <li>5. Polymorphism</li> <li>6. Interface</li> <li>7. Exception</li> <li>8. Collection and Map</li> <li>9. Input and Output</li> <li>10. Connection Database</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

2<sup>nd</sup> Year, Semester 4

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	商用英文實務(二)	
	英(E)	English for Business Practice(II)	
課程目標 (Course Goal)	Students will have the knowledge of English used in business situations, telephoning, negotiations, and trade procedures.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Understanding different English accents</li> <li>2. Understanding various dialogues and monologues</li> <li>3. Analyzing English sentence structure</li> <li>4. Developing reading comprehension strategies</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	統計學(二)	
	英(E)	Statistics(II)	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Understand the concept of confidence interval</li> <li>2. Understand the hypothesis testing and its applications</li> <li>3. Understand the testing and inference the variance of population</li> <li>4. Understand the analysis of variances and its applications</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Confidence interval and estimates</li> <li>2. Hypothesis testing</li> <li>3. Testing of two populations</li> <li>4. Inference the variance of population</li> <li>5. Testing of independence</li> <li>6. Analysis of variances (1)</li> <li>7. Analysis of variances (2)</li> <li>8. Correction and regression analysis</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	IM0023	學年版本	104
課程名稱 (Course Name)	中(C)	資料庫程式設計	
	英(E)	Database Programming	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning basic programming knowledge about building a database based web side.</li> <li>2. Learning a small scale database system, e.g. MySQL.</li> <li>3. Learning a programming language for web server, e.g. PHP.</li> <li>4. Learning how to build a databased based web side.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. The relationship between databases and web sides.</li> <li>2. Introduction to process of developing a web side.</li> <li>3. Briefly introducing front end programming.(HTML, CSS, Javascript)</li> <li>4. How to build a web side.</li> <li>5. Using and managing a database system.</li> <li>6. Learning a programming language for web server:               <ol style="list-style-type: none"> <li>(1)Basic Syntax and information communication between pages.</li> <li>(2)File access and management.</li> <li>(3)Ajax</li> <li>(4)Manage and access database management system</li> </ol> </li> <li>7. How to build a small application</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	創意思考方法	
	英(E)	Method for Creative Thinking	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Lectures of creative thinking activities.</li> <li>2. Creative thinking exercises</li> <li>3. Group discussions and field observations.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Innovation opportunities and sources</li> <li>2. Innovation principles, contraindications and conditions</li> <li>3. Disruptive innovation vs. creative model</li> <li>4. Six Thinking Hats</li> <li>5. Mind Mapping Software</li> <li>6. Market Assessment and Strategy Analysis</li> <li>7. Proposal of innovative service opportunities.</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	IM0062	學年版本	104
課程名稱 (Course Name)	中(C)	消費者行為	
	英(E)	Consumer Behavior	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning fundamental concepts of Consumer Behavior</li> <li>2. This course is designed to provide an understanding of consumer behavior. This understanding can make us better consumers, better marketers, and better citizens.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1.Introduction of Consumer Behavior and Marketing Strategy</li> <li>2.External Influences of Consumer Behavior               <ol style="list-style-type: none"> <li>(1). Cross-Cultural Variations</li> <li>(2). Changing Values in America</li> <li>(3).Changing Society in America – Demographics, Subcultures, and Families and Households</li> <li>(4).Group Influence on Consumer Behavior</li> </ol> </li> <li>3. Internal Influences on Consumer Behavior               <ol style="list-style-type: none"> <li>(1).Perception</li> <li>(2). Learning, Memory, and Product Positioning</li> <li>(3). Motivation, Personality, and Emotion</li> <li>(4). Attitudes</li> <li>(5). Self Concepts and Lifestyles</li> </ol> </li> <li>4.Consumer Decision Process               <ol style="list-style-type: none"> <li>(1).Situational Influences</li> <li>(2). Consumer Decision Process and Problem Recognition</li> <li>(3). Information Search</li> <li>(4). Alternative Evaluation and Purchase</li> <li>(5).Post-purchase Process, Consumer Satisfaction, and Customer Commitment</li> </ol> </li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	網頁程式設計	
	英(E)	Web Programming	
課程目標 (Course Goal)	1. Ability to learn Web Page standards and web design 2. Learning basic capabilities of web programming		
內容綱要 (Course Outline)	1. HTML5 2. CSS3 3. JavaScript		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	資料庫系統實務	
	英(E)	Implementation of Database System	
課程目標 (Course Goal)	<p>After completing this course, you should be able to:</p> <ul style="list-style-type: none"> <li>• Identify the major components of Oracle Database</li> <li>• Retrieve row and column data from tables with the SELECT statement</li> <li>• Create reports of sorted and restricted data</li> <li>• Employ SQL functions to generate and retrieve customized data</li> <li>• Run complex queries to retrieve data from multiple tables</li> <li>• Run data manipulation language (DML) statements to update data in Oracle Database</li> <li>• Run data definition language (DDL) statements to create and manage schema objects</li> </ul>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Retrieving Data Using the SQL SELECT Statement</li> <li>3. Restricting and Sorting Data</li> <li>4. Using Single-Row Functions to Customize Output</li> <li>5. Using Conversion Functions and Conditional Expressions</li> <li>6. Reporting Aggregated Data Using the Group Functions</li> <li>7. Displaying Data from Multiple Tables Using Joins</li> <li>8. Using Subqueries to Solve Queries</li> <li>9. Using the Set Operators</li> <li>10. Manipulating Data</li> <li>11. Using DDL Statements to Create and Manage Tables</li> <li>12. Creating Other Schema Objects</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	網路規劃與分析	
	英(E)	Network Planning And Analysis	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduce the concept and principle of data communication network.</li> <li>2. Guide students how to apply data communication network efficiently.</li> <li>3. Teach students how to construct and manage the communication network and apply it in business transactions.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. LAN Design</li> <li>2. Basic Switch Concepts and Configuration</li> <li>3. VLANs</li> <li>4. VTP</li> <li>5. STP</li> <li>6. Inter-VLAN Routing</li> <li>7. Basic Wireless Concepts and Configuration</li> <li>8. Introduction to WANs</li> <li>9. PPP</li> <li>10. Frame Relay</li> <li>11. Network Security</li> <li>12. ACLs</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	資訊安全與管理	
	英(E)	Information Security and Management	
課程目標 (Course Goal)	The goal of this course aims at the theories, standards and methodologies in the field of information security and management. In addition, some practical principles and case practices are also included in this course, so that the students are able to realize how to analyze and design trusted information applications, further to implement secured information systems with considering the primary information security requirements.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to Information Security and Network Security Concepts</li> <li>2. Traditional Symmetric-Key Ciphers</li> <li>3. Modern Symmetric-Key Ciphers</li> <li>4. Data Encryption Standard (DES)</li> <li>5. Advanced Encryption Standard (AES)</li> <li>6. Encipherment Using Modern Symmetric-Key Ciphers</li> <li>7. Asymmetric-Key Cryptography</li> <li>8. Message Integrity and Message Authentication</li> <li>9. Cryptographic Hash Functions</li> <li>10. Digital Signature</li> <li>11. Entity Authentication</li> <li>12. Key Management</li> <li>13. Security at the Transport Layer: SSL and TLS</li> <li>14. Security at the Network Layer: IPSec</li> <li>15. Other Related Topics, such as Threat Modeling and Risk Management</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	作業系統	
	英(E)	Operating Systems	
課程目標 (Course Goal)	<p>This course will provide an introduction to operating system design and implementation, and start with a brief historical perspective of the evolution of operating systems over the last fifty years, and then cover the major components of most operating systems. This discussion will cover the tradeoffs that can be made between performance and functionality during the design and implementation of an operating system. Particular emphasis will be given to three major OS subsystems: process management (processes, threads, CPU scheduling, synchronization, and deadlock), memory management (segmentation, paging, swapping), and file systems.</p>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. System Structures</li> <li>3. Process Concept</li> <li>4. Thread</li> <li>5. Process Scheduling</li> <li>6. Synchronization</li> <li>7. Deadlocks</li> <li>8. Memory-Management Strategies</li> <li>9. Virtual-Memory Management</li> <li>10. File System</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

3rd Year, Semester 5

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	商用英文書信實務(一)	
	英(E)	English Writing for Business Practice (I)	
課程目標 (Course Goal)	After completing the course, students will be able 1. To communicate clearly in written English 2. To develop a core set of expressions and techniques for appropriate communication in a variety of written formats.		
內容綱要 (Course Outline)	1. Making requests 2. Replying to a request 3. Making an enquiry 4. Refusing an enquiry 5. Placing an order 6. Verbs used with 'order' 7. Adjective order 8. Changing or canceling an order		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	系統分析與設計	
	英(E)	System Analysis and Design	
課程目標 (Course Goal)	The objective of this course is to introduce the concept, theory and operational process of system analysis and system design (SA&SD) that includes various structured and object-oriented SA&SD methodologies and tools such as data flow diagram, entity relationship diagram, data dictionary, structured chart, UML charts and so on. Through the in-class activities like textbook reading, materials discussions, case studies, results reporting and oral examinations, the students could be expected to obtain the necessary skills and capability of SA&SD.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. The Sources of Software</li> <li>2. Determining System Requirements</li> <li>3. Introduction to Structured and Object-Oriented SA&amp;SD</li> <li>4. Structuring System Requirements (Use Case, Event Table, and 1st ed. UCD)</li> <li>5. Structuring System Requirements (2nd ed. UCD, Scenario Description, and Blueprint)</li> <li>6. Analyzing System Process Requirements (DFD)</li> <li>7. Structuring System Data Requirements (Data Dictionary, Normalization for DB Design)</li> <li>8. Analyzing System Process Requirements (Revised DFD)</li> <li>9. Analyzing System Process Requirements (Activity Diagram)</li> <li>10. Analyzing System Process Requirements (Adv. Sequence Diagram)</li> <li>11. Analyzing System Process Requirements (More on Adv. Sequence Diagram)</li> <li>12. Class Diagram</li> <li>13. Issues of Implementing the Information System</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	網路行銷	
	英(E)	Internet Marketing	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Teaches internet marketing related concepts, theories, and emerging internet marketing tool that enables students.</li> <li>2. Practice of Internet Marketing project planning and implementation.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to Internet Marketing.</li> <li>2. Social network and Internet marketing.</li> <li>3. Internet Marketing Environment.</li> <li>4. Internet Marketing Strategy: Framing, Market segmentation, Target selection, Differentiation, and Positioning.</li> <li>5. Internet Marketing Management: Product, Pricing, Place distribution, Promotion.</li> <li>6. Customer Relationship Management.</li> <li>7. Internet Marketing Practices and Case studies.</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	網路廣告	
	英(E)	Internet Advertising	
課程目標 (Course Goal)	<p>The course objective is to provide a solid fundamental of the concepts of Internet advertising.</p> <p>After completing this course, students will be able to</p> <ol style="list-style-type: none"> <li>1. Understand the principles and practice of Internet advertising.</li> <li>2. Acquire practical skills in Internet advertising.</li> <li>3. Develop a digital integrated marketing communication plan.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. The Communication process</li> <li>3. Segmenting and Targeting the Audience</li> <li>4. Strategic Research and Planning</li> <li>5. The Creative Side</li> <li>6. Media Planning and Strategy</li> <li>7. Paid, Owned, Interactive, and Earned Media</li> <li>8. Measuring the Effectiveness of the Promotional Program</li> <li>9. The advantages of online Ad</li> <li>10. Online Ad Models</li> <li>11. Online Ad Management</li> <li>12. Pricing Online Ads</li> <li>13. Evaluating the Effectiveness of Online Ad</li> <li>14. Legal Issues related to Online Ad</li> <li>15. Technology Issues related to Online Ad</li> <li>16. New Trends in Digital Ad</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	創意與資訊科技	
	英(E)	Creativity And Information Technology	
課程目標 (Course Goal)	The objective of this course is to systematically introduce the industry analysis models, creativity thinking techniques, and technology foresight approaches. Accordingly to advance the students' capability of scenario generation and function design, especially on the applications of digital content such as digital games, animation, digital learning, digital audio/video applications, mobile services, networking services, as well as digital publication. Based on the generated application scenarios and the influence links among the associated trends, force of changes, visions, and technologies, the students could learn to propose appropriate strategies with the implications of business management and technological applications.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to industry analysis</li> <li>2. Introduction to fundamental industrial analysis methods</li> <li>3. Review on Creation and Innovation</li> <li>4. Domain Scoping &amp; Ecosystem Analysis</li> <li>5. Trends Analysis &amp; Baseline Scenarios</li> <li>6. The Initiatives</li> <li>7. Force of Changes &amp; Alternative Scenarios</li> <li>8. The Signposts</li> <li>9. Ideation &amp; Vision Map</li> <li>10. Vision Network and Preferable Scenarios</li> <li>11. Technology Deep Dive</li> <li>12. Initiatives and Signposts Determination</li> <li>13. Strategic Actions &amp; Information System Designs</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	學年版本
課程名稱 (Course Name)	中(C) 決策方法與分析 英(E) Decision Method And Analysis
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduce the process and techniques and decision making</li> <li>2. Learn various quantitative and qualitative approach for decision making</li> <li>3. Learn the techniques for Uncertainty, multi-attributes decision making</li> </ol>
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction of decision making</li> <li>2. Types of decision making and traps</li> <li>3. Systematical decision making</li> <li>4. Multi-attribute decision making</li> <li>5. Analytical Hierarchy Analysis</li> <li>6. Data envelopment analysis</li> <li>7. Decision making with uncertainty</li> <li>8. Risk and decision making</li> </ol>
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)
修訂備註	(說明修訂原因或背景)

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	網路程式設計	
	英(E)	Network Programming	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduce the concept and principle of network programming.</li> <li>2. Guide students how to learn network programming efficiently.</li> <li>3. Teach students how to apply network programming in business transactions.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to network programming</li> <li>2. Socket Programming</li> <li>3. The streaming of TCP and UDP</li> <li>4. Peer to peer programming</li> <li>5. Client server programming</li> <li>6. The protocol of HTTP and FTP</li> <li>7. Multicasting</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	學年版本
課程名稱 (Course Name)	中(C) 進階資料庫系統實務 英(E) Advanced Implementation of Database Systems
課程目標 (Course Goal)	After completing this course, you should be able to: <ul style="list-style-type: none"> <li>• Install, create, and administer Oracle Database 11g Release 2</li> <li>• Configure the database for an application</li> <li>• Employ basic monitoring procedures</li> <li>• Implement a backup and recovery strategy</li> <li>• Move data between databases and files</li> </ul>
內容綱要 (Course Outline)	1. Exploring the Oracle Database Architecture 2. Preparing the Database Environment 3. Creating an Oracle Database 4. Managing Database Instances 5. Managing ASM Instances 6. Configuring the Oracle Network Environment 7. Managing Database Storage Structures 8. Administering User Security 9. Managing Data Concurrency 10. Managing Undo Data 11. Implementing Oracle Database Auditing 12. Database Maintenance 13. Performance Management 14. Backup and Recovery Concepts 15. Performing Database Backups 16. Performing Database Recovery 17. Moving Data 18. Working with Support
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)
修訂備註	(說明修訂原因或背景)

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	財務管理	
	英(E)	Financial Management	
課程目標 (Course Goal)	The goal of this course is to introduce and motivate students to the subject of financial management, and to equip students with the basic concepts and tools of conducting financial management related analysis.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Understanding financial statements and cash flow</li> <li>3. Valuation of future cash flows</li> <li>4. Risk and return</li> <li>5. Valuing stocks and bonds</li> <li>6. Capital budgeting</li> <li>7. Cost of capital</li> <li>8. Capital structure</li> <li>9. Working capital management</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	生產管理資訊系統	
	英(E)	Information system & Operation management	
課程目標 (Course Goal)	The goal of this course is to introduce and motivate students to the subject of Information system & Operation management, and to equip students with the basic concepts and tools of conducting Information system & Operation management related analysis.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction of Operation management</li> <li>2. Production planning</li> <li>3. Productivity management and Total Quality management</li> <li>4. Economics of Maintenance and Spares management</li> <li>5. Information System analysis and design</li> <li>6. Database management system</li> <li>7. Management Information System and Information Economics</li> <li>8. Enterprise Resource Planning</li> <li>9. Cyber law and E-commerce</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號			學年版本	
課程名稱 (Course Name)	中(C)	資訊管理實務專題 (一)		
	英(E)	Practical Project On Information Management I		
課程目標 (Course Goal)	The practical project on information management is a course series containing courses I, II, and III in semesters 5, 6, and 7 respectively. The objective of this course series is to instruct the students to realistically implement an information system. Not only familiarizing the theories, tools, and skills that are useful in implementing an information system, the students will also experience the team-work activities with the coach from a selected mentor (teacher).			
內容綱要 (Course Outline)	Depends on the requirements of the selected topic, the type of the target information system, and the works arranged for project management.			
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)			
修訂備註	(說明修訂原因或背景)			

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

3<sup>rd</sup> Year, Semester 6

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	商用英文書信實務(二)	
	英(E)	English Writing for Business Practice (II)	
課程目標 (Course Goal)	After completing the course, students will be able 1. To communicate clearly in written English 2. To develop a core set of expressions and techniques for appropriate communication in a variety of written formats.		
內容綱要 (Course Outline)	1. Making requests 2. Replying to a request 3. Making an enquiry 4. Refusing an enquiry 5. Placing an order 6. Verbs used with 'order' 7. Adjective order 8. Changing or canceling an order		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	軟體專案管理	
	英(E)	Software Project Management	
課程目標 (Course Goal)	Software project management (SPM) is to apply the management principles, methods and techniques to achieve the expected performance and system functions under the considerations of resource, time, and budget. The objective of this course is to introduce the concept and practical cases of SPM, including the role's responsibility, project scheduling, monitoring, review, and etc.; also the characteristics of a good SPM manager and how to obtain the critical capabilities. Besides, some skills like quality management, risk management, value management, stakeholder management, and change management are introduced and discussed in this course, too.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Types of information systems projects</li> <li>2. Business strategy and information systems</li> <li>3. The business case</li> <li>4. The organizational framework</li> <li>5. The program and project support office</li> <li>6. Development lifecycles and approaches</li> <li>7. The profile of a project</li> <li>8. Project planning: understanding the work, estimating, scheduling and resourcing</li> <li>9. Monitoring progress</li> <li>10. Reporting progress</li> <li>11. Managing quality</li> <li>12. Managing risk</li> <li>13. Value engineering and value management</li> <li>14. Selling the project</li> <li>15. Managing stakeholders</li> <li>16. Managing suppliers</li> <li>17. Managing change</li> <li>18. Leadership and performance</li> <li>19. Managing the team</li> <li>20. The project manager</li> <li>21. Developing your career, as a PM</li> <li>22. Bodies of knowledge and standards for PM</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	作業研究	
	英(E)	Operation Research	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduction to mathematical fundamentals in management science</li> <li>2. mathematical modeling</li> <li>3. linear programming</li> <li>4. network problem.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Linear Equations and Graphics</li> <li>2. Mathematics of Finance</li> <li>3. System of Linear Equations</li> <li>4. Matrices and its operations (eigenvector, AHP)</li> <li>5. Linear Inequalities and Linear Programming</li> <li>6. Linear Programming: Simplex Method</li> <li>7. Logics, Sets and counting techniques</li> <li>8. Probability</li> <li>9. Markov Chains</li> <li>10. Games and Decision</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	學年版本
課程名稱 (Course Name)	中(C) 顧客關係管理 英(E) Customer Relationship Management (CRM)
課程目標 (Course Goal)	The goal of this course is to provide students with solid grounding in CRM, and to stimulate students to craft creative and effective CRM strategies and programs.
內容綱要 (Course Outline)	1. Introduction 2. Customer management 3. Marketing, sales and service management 4. Customer differentiation 5. Customer loyalty 6. Customer retention, win back and acquisition strategies 7. Management strategies for CRM 8. Call centers 9. CRM related data mining 10. CRM related business flows and systems
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)
修訂備註	(說明修訂原因或背景)

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	企業資源規劃系統	
	英(E)	Enterprise Resource Planning System	
課程目標 (Course Goal)	By the end of the course, students should be able to identify the main modules of ERP, recognize the various challenges faced by ERP implementation and give some best practices in ERP field.		
內容綱要 (Course Outline)	Part 1: Introduction to ERP Part 2: Introduction to SAP ERP Part 3: Material Management Module Part 4: Production and Scheduling Module Part 5: Sales and Distribution Module Part 6: Financial Accounting Module Part 7: Cost Management Module Part 8: Human Resources Management Module Part 10: Case Study		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	多媒體程式設計	
	英(E)	Programming for Multimedia	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Learning how to create and perform multimedia applications using computer programming.</li> <li>2. In this course, the multimedia includes images, graphics, audio, video, and man-machine interaction.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Basic Forms and Shapes</li> <li>2. Color and Image</li> <li>3. Voice recording and management.</li> <li>4. Dynamic Visual Design</li> <li>5. Interaction</li> <li>6. Three Dimension Visual Design</li> <li>8. Video Processing</li> <li>9. Data Visualization</li> </ol>		
備註說明	We use Processing as the programming language in this course.		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	104
課程名稱 (Course Name)	中(C)	電腦動畫	
	英(E)	3D Computer Graphics	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduction of 3DS MAX and 3D modeling concepts.</li> <li>2. 3D animation capturing</li> <li>3. Cultivate student the ability of 3D animation design and.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to 3D computer graphics</li> <li>2. 3ds Max interface and 3D modeling</li> <li>3. Primitive object creation</li> <li>4. Compound object and Boolean</li> <li>5. Editable polygon</li> <li>6. Particle system</li> <li>7. Material and mapping</li> <li>8. Lighting</li> <li>9. Camera</li> <li>10. 3D animation</li> <li>11. Advanced 3D animation</li> <li>12. rendering</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	知識管理	
	英(E)	Knowledge management	
課程目標 (Course Goal)	Understanding the significance of knowledge management, the relationship between the basic concepts, knowledge and information systems, and to explore organizations to promote knowledge management and the evaluation step of performance.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction of Knowledge Management</li> <li>2. The main theoretical framework of Knowledge Management</li> <li>3. The capital and strategy perspectives of knowledge management</li> <li>4. The definition of knowledge management</li> <li>5. Knowledge share and transfer</li> <li>6. Knowledge storage and application</li> <li>7. Performance Evaluation of Knowledge Management</li> <li>8. Information Technology and Knowledge Management Systems</li> <li>9. Case Analysis and Discussion</li> </ol>		
備註說明			
修訂備註			

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	行動應用程式設計	
	英(E)	Mobile Application Programming	
課程目標 (Course Goal)	Understanding the Android application development, Android SDK. The course is based on Java programming.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Android Studio setup</li> <li>2. The interface design</li> <li>3. Activity</li> <li>4. Intent</li> <li>5. Service</li> <li>6. Content provider</li> <li>7. Broadcast receiver</li> <li>8. Notification</li> <li>9. Data storage</li> <li>10. Google map API</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號			學年版本	
課程名稱 (Course Name)	中(C)	資訊管理實務專題 (二)		
	英(E)	Practical Project On Information Management II		
課程目標 (Course Goal)	The practical project on information management is a course series containing courses I, II, and III in semesters 5, 6, and 7 respectively. The objective of this course series is to instruct the students to realistically implement an information system. Not only familiarizing the theories, tools, and skills that are useful in implementing an information system, the students will also experience the team-work activities with the coach from a selected mentor (teacher).			
內容綱要 (Course Outline)	Depends on the requirements of the selected topic, the type of the target information system, and the works arranged for project management.			
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)			
修訂備註	(說明修訂原因或背景)			

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

4<sup>th</sup> Year, Semester 7

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	商事法	
	英(E)	Commercial Law	
課程目標 (Course Goal)	The goal of this course is to give students an overview of legal matters that they will deal with in their personal and/or professional life. The course begins with a quick review of ethics, how laws are made, sources of law, and civil and criminal procedures.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. What Is Law?</li> <li>2. Criminal Law</li> <li>3. Tort Law</li> <li>4. What Is a Contract?</li> <li>5. Elements of a Contract</li> <li>6. How Contracts Come to an End</li> <li>7. Consumer Law &amp; Contracts</li> <li>8. Personal Property</li> <li>9. Renting or Owning a Home</li> <li>10. Banking &amp; Negotiable Instruments</li> <li>11. Credit &amp; Debt</li> <li>12. Credit Protection &amp; Bankruptcy</li> <li>13. Agency &amp; Employment</li> <li>14. Agency Authority &amp; Termination</li> <li>15. Employment Law</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	管理資訊系統	
	英(E)	Management Information Systems (MIS)	
課程目標 (Course Goal)	The goal of this course is to develop understanding the basic concepts and applications of management information systems, and to learn the processes of building and managing information systems.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Global e-business and information systems</li> <li>3. Information systems, organization and strategy</li> <li>4. Ethical and Social issues in information systems</li> <li>5. Enterprise applications: ERP、CRM、SCM、KM</li> <li>6. E-commerce</li> <li>7. Enhancing decision-making</li> <li>8. Building and managing systems</li> <li>9. MIS Case study</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	資料挖掘與企業應用	
	英(E)	Data Mining and Enterprise Applications	
課程目標 (Course Goal)	The goal of this course is to provide students with the core data mining concepts and practical skills for applying data mining techniques to solve real-world problems.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Data preprocessing</li> <li>3. Association rules</li> <li>4. Classification and prediction</li> <li>5. Cluster analysis</li> <li>6. Enterprise applications &amp; case study</li> <li>7. Paper presentation &amp; discussion</li> <li>8. Projects on data mining</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	創新資訊服務實務	
	英(E)	Practice of Innovative Information Service	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Discuss and analyze innovative information services through case studies.</li> <li>2. Exploring opportunities and innovative ideas for service innovation.</li> <li>3. Practice on ICT-enabled applications.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction to service innovation.</li> <li>2. Case studies on emerging service innovations</li> <li>3. Integration theories and practices on services innovation.</li> <li>4. Case Studies</li> <li>5. SSME analysis and practical applications</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	多媒體應用	
	英(E)	Applications of Multimedia	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduction of the modern technique of multimedia system.</li> <li>2. flash animation and video editing</li> <li>3. Multimedia term project</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. introduction of multimedia system</li> <li>2. audio editing</li> <li>3. 2D animation</li> <li>4. Video editing</li> <li>5. internet multimedia</li> <li>6. multimedia communication and CD title</li> <li>7. flash animation</li> <li>8. interactivity</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	模糊理論與應用	
	英(E)	Fuzzy Sets Theory and Applications	
課程目標 (Course Goal)	The course acquaints with the basics of the fuzzy sets and fuzzy logic and their contemporary tendencies and implementations. Specific techniques in the areas of data mining, expert system design and process modeling are considered. By the end of the course the students will be able to solve some theoretical and experimental tasks of the data analysis, modeling of complex processes and artificial intelligence using fuzzy sets and fuzzy logic theory		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Fuzzy set – definition, types and basic features.</li> <li>2. Operations on fuzzy sets.</li> <li>3. Logical operations. t-norms and co-norms, negations. Fuzzy distance and index.</li> <li>4. Fuzzy numbers and intervals. Operations on fuzzy numbers</li> <li>5. Fuzzy relation and composition</li> <li>6. Fuzzy Similarity Measure</li> <li>7. Fuzzy rule base and linguistic models</li> <li>8. Fuzzification and Defuzzification methods</li> <li>9. Fuzzy cluster analysis</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號			學年版本	
課程名稱 (Course Name)	中(C)	資訊管理實務專題 (三)		
	英(E)	Practical Project On Information Management III		
課程目標 (Course Goal)	The practical project on information management is a course series containing courses I, II, and III in semesters 5, 6, and 7 respectively. The objective of this course series is to instruct the students to realistically implement an information system. Not only familiarizing the theories, tools, and skills that are useful in implementing an information system, the students will also experience the team-work activities with the coach from a selected mentor (teacher).			
內容綱要 (Course Outline)	Depends on the requirements of the selected topic, the type of the target information system, and the works arranged for project management.			
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)			
修訂備註	(說明修訂原因或背景)			

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

4<sup>th</sup> Year, Semester 8

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	行銷資訊系統	
	英(E)	Marketing Information Systems	
課程目標 (Course Goal)	<p>This course provides knowledge of the functional components of marketing information systems (MkIS), and introduces principles and methods used for developing MkIS.</p> <p>After completing this course, students will be able to</p> <ol style="list-style-type: none"> <li>1. Understand the the basic concepts and principles of MkIS.</li> <li>2. Get acquainted and acquire practical skills for building MkIS..</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. The Basic Conepts of Marketing</li> <li>3. Management Information Systems</li> <li>4. The Architecture of MkIS</li> <li>5. The Components and structure of MkIS</li> <li>6. Systems Development Methodologies</li> <li>7. Requirement Analysis of MkIS</li> <li>8. Data Source for MkIS</li> <li>9. E-commerce and MkIS</li> <li>10. CRM and MkIS</li> <li>11. Big Data and MkIS</li> <li>12. Knowledge Managemet and MkIS</li> <li>13. Strategic MkIS</li> <li>14. International MkIS</li> <li>15. Database Marketing and MkIS</li> <li>16. New Trends in MkIS</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	服務創新個案研討	
	英(E)	Case Study on Service Innovation	
課程目標 (Course Goal)	<ol style="list-style-type: none"> <li>1. Introduction to service science and service innovation cases on information management research topics.</li> <li>2. Integration of all MIS related areas from cross field perspectives.</li> </ol>		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Introduction Service Science</li> <li>2. The SDL thinking (Service Dominate Logic)</li> <li>3. Service Development Strategy</li> <li>4. Service Blueprint</li> <li>5. Service Innovation Theory</li> <li>6. Design Services</li> <li>7. Service innovation case studies</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號	學年版本
課程名稱 (Course Name)	中(C) 決策支援系統 英(E) Decision Support Systems and Business Intelligence
課程目標 (Course Goal)	By the end of the course, students should be able to understand the foundations and key issues of managerial decision making and the main functions of DSS.
內容綱要 (Course Outline)	1. Understand the foundations and key issues of managerial decision making 2. Recognize the difficulties in managerial decision making today 3. Learn the major frameworks of computerized decision support 4. Operate the major tools of computerized decision support 5. Understand the major issues in implementing computerized support systems 6. Compare decision support systems (DSS) and business intelligence
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)
修訂備註	(說明修訂原因或背景)

Course Syllabus for Bachelor Degree  
Department of Information Management, National United University

永久課號		學年版本	
課程名稱 (Course Name)	中(C)	計算智慧	
	英(E)	Computational Intelligence	
課程目標 (Course Goal)	Introducing concepts, models and algorithms for development of intelligent systems. Example topics include artificial neural networks, genetic algorithms, some Bionics technologies such as swarm intelligence, ant colony optimization, and hybridizations of the above techniques. We will look at these techniques from a machine learning perspective. This domain is called Computational Intelligence, and is a numerical interpretation of biological intelligence.		
內容綱要 (Course Outline)	<ol style="list-style-type: none"> <li>1. Foundations of Genetic Algorithm</li> <li>2. Foundations of Ant Algorithm</li> <li>3. Foundations of Particle Swarm Optimization; PSO</li> <li>4. Foundations of Tabu Search</li> <li>5. Foundations of Simulated Annealing</li> <li>6. Decision Tree Learning</li> <li>7. Nearest-Neighbor Classification</li> <li>8. Bayes Classification</li> <li>9. Support Vector Machine; SVM</li> <li>10. Perceptron</li> <li>11. Back-Propagation Network; BPN</li> <li>12. Radial Basis Function; RBF</li> <li>13. Counter Propagation Network; CPN</li> <li>14. Probabilistic Neural Network; PNN</li> <li>15. Learning Vector Quantization; LVQ</li> <li>16. Adaptive Resonance Theory Network; ART</li> <li>17. Self-Organizing Map Network; SOM</li> <li>18. Hopfield Neural Network; HNN</li> <li>19. Bi-directional Associative Memory; BAM</li> </ol>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

國立聯合大學 資訊管理學系  
學士班系訂課程大綱

永久課號	IM0045	學年版本	99
課程名稱 (Course Name)	中 (C)	資料倉儲與挖掘	
	英 (E)	Data Warehouse and Mining	
課程目標 (Course Goal)	<p>There are two topics discussed in data warehousing and mining. Data warehousing can extract aggregated information from the database, and data mining is the most important step in knowledge development. New information can be extracted from the database. Both can be done. Help company decision-makers make decisions from these aggregated or new information. The course content is mainly based on data mining, including introduction to the meaning, function and application of data mining, as well as data storage, OLAP, feature analysis, system architecture, association rule algorithm, classification algorithm, clustering algorithm, and sequentiality Model algorithm.</p>		
內容綱要 (Course Outline)	<p style="text-align: center;">Basics of data mining Data warehousing and OLAP technology in data mining Data preparation Association rules Classification Rules Cluster analysis Application of data mining in related fields</p>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		

課程大綱表格

永久課號	IM0068	學年版本	99
課程名稱 (Course Name)	中 (C)	UNIX 作業系統	
	英 (E)	UNIX OPERATING SYSTEM	
課程目標 (Course Goal)	Introduce the concepts of the UNIX operating system. System and server management based on Linux. Guidance on Linux-related certifications.		
內容綱要 (Course Outline)	<p>Introduction to hardware and LINUX system installation</p> <p>LINUX interface basic operation and important instructions</p> <p>File and directory management and permission setting</p> <p>Disk and file system management and compression</p> <p>Vi and other word processors</p> <p>Account and identity management</p> <p>Management and scheduling of process and service</p> <p>Advanced System Management</p> <p>Shell Script writing</p> <p>Network related settings,</p> <p>Apache server management</p>		
備註說明	(相關課程之銜接說明及特殊設備空間需求說明)		
修訂備註	(說明修訂原因或背景)		