

Tamkang University
the first semester in the 2023-2024 academic year
Course Syllabus

Course Title	BIG DATA ANALYSIS			Instructor	CHI-BIN CHENG	
Department/Year/Class		Course Details				
Information Management/2023-2024/ The first year		<input type="checkbox"/> Required <input checked="" type="checkbox"/> Selective	<input checked="" type="checkbox"/> 0 (One Semester) <input type="checkbox"/> 1 (1st Semester) <input type="checkbox"/> 2 (2nd Semester) <input type="checkbox"/> 3 (3rd Semester)	Credits	2	
Course Introduction (50 to 100 words)	Enterprises generate big data when conducting business activities. Many data actually contain important information, which is valuable to the enterprises. This course mainly introduce various techniques of data analysis and data mining to obtain those information. By understanding this, it will inspire students to come up with new applications and thinking directions of data mining.					
Course Schedule						
Week	Date	Subject/Topics			Note	
1	113/02/19～ 113/02/25	Introduction to Data Mining				
2	113/02/26～ 113/03/03	Data Analysis				
3	113/03/04～ 113/03/10	Business Intelligence				
4	113/03/11～ 113/03/17	Web Crawler				
5	113/03/18～ 113/03/24	Web Crawler				
6	113/03/25～ 113/03/31	Data Warehouse				
7	113/04/01～ 113/04/07	Mining Frequent Patterns and Associations				
8	113/04/08～ 113/04/14	Mining Frequent Patterns and Associations				
9	113/04/15～ 113/04/21	Classification and prdiction				
10	113/04/22～ 113/04/28	Midterm Exam				
11	113/04/29～ 113/05/05	Applications of Data mining to Enterprise				

12	113/05/06~ 113/05/12	Regression	
13	113/05/13~ 113/05/19	Cluster Analysis	
14	113/05/20~ 113/05/26	Deep Learning and Data Mining	
15	113/05/27~ 113/06/02	Neural Network	
16	113/06/03~ 113/06/09	Data Mining and Natural Language Processing	
17	113/06/10~ 113/06/16	Enterprise Visiting	
18	113/06/17~ 113/06/23	Final Exam	
Requirement			
Teaching Facility			
Textbook(s)	Data Mining Concepts and Techniques		
Suggested Readings	Data Analytics Made Accessible		
Number of Assignment(s)	3		
Grading Policy	Home Works : 30.0 %, Midtem Exam: 30%, Final Exam : 40 %		
Note			

Form No. : ATRX-Q03-001-FM201-05

Tamkang University
the second semester in the 2023-2024 academic year
Course Syllabus

Course Title	Algorithms		Instructor	Chi-Chang Jou	
Department/Year/Class		Course Details			
Information Management/2023-2024/ The first year		<input type="checkbox"/> Required <input checked="" type="checkbox"/> Selective	<input checked="" type="checkbox"/> 0 (One Semester) <input type="checkbox"/> 1 (1st Semester) <input type="checkbox"/> 2 (2nd Semester) <input type="checkbox"/> 3 (3rd Semester)	Credits	2
Course Introducton (50 to 100 words)	This course teaches techniques for the design and analysis of efficient algorithms, and introduces concepts and theories regarding computational complexity. This course emphasizes methods useful in practical problem solving. Topics include: performance analysis, divide and conquer, dynamic programming, prune and search, the greedy approach, backtracking, branch and bound, NP-Completeness, and approximate algorithms.				
Course Schedule					
Week	Date	Subject/Topics			Note
1	113/09/09～ 113/09/15	Introduction			
2	113/09/16～ 113/09/22	Analysis of Problems and Algorithms			
3	113/09/23～ 113/09/29	Analysis of Problems and Algorithms			
4	113/09/30～ 113/10/06	The Greedy Approach			
5	113/10/07～ 113/10/13	The Greedy Approach			
6	113/10/14～ 113/10/20	Teaching observation			
7	113/10/21～ 113/10/27	Prune and Search			
8	113/10/28～ 113/11/03	Divide and Conquer			
9	113/11/04～ 113/11/10	Divide and Conquer			
10	113/11/11～ 113/11/17	Midterm			

11	113/11/18~ 113/11/24	Backtracking	
12	113/11/25~ 113/12/01	Dynamic Programming	
13	113/12/02~ 113/12/08	Dynamic Programming	
14	113/12/09~ 113/12/15	Branch and Bound	
15	113/12/16~ 113/12/22	NP-Completeness	
16	113/12/23~ 113/12/29	Approximate Algorithms	
17	113/12/30~ 114/01/05	Approximate Algorithms	
18	114/01/06~ 114/01/12	Final	
Requirement	basic programming skills		
Teaching Facility	Computer, Projector, Internet		
Textbook(s)	Algorithms, 3 rd edition, S. C. Tai, Tsang Hai Publishing		
Suggested Readings	Introduction to the Design and Analysis of Algorithms, 3 rd edition, Levitin, Pearson		
Number of Assignment(s)	6		
Grading Policy	Attendance: 10%, Homework: 30%, Midterm: 30%, Final: 30%		
Note			

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Tamkang University
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Course Syllabus

Course Title	Hot Issues of Information Management		Instructor	SHIH, SHENG-PAO	
Department/Year/Class		Course Details			
Information Management/2023-2024/ The first year		<input type="checkbox"/> Required <input checked="" type="checkbox"/> Selective	<input checked="" type="checkbox"/> 0 (One Semester) <input type="checkbox"/> 1 (1st Semester) <input type="checkbox"/> 2 (2nd Semester) <input type="checkbox"/> 3 (3rd Semester)	Credits	2
Course Introduction (50 to 100 words)	Students are required to collect and study interested topics or papers in the fields of information management/technology and give a formal presentation regarding their studies. Through the discussions with classmates and the instructor, students are able to explore their future research directions.				
Course Schedule					
Week	Date	Subject/Topics			Note
1	113/02/19～ 113/02/25	Course Introduction			
2	113/02/26～ 113/03/03	Introduction to Modern Information Technology (IT)			
3	113/03/04～ 113/03/10	Modern Information-Related Technologies			
4	113/03/11～ 113/03/17	Modern IT Applications			
5	113/03/18～ 113/03/24	Discussion on Papers about Emergent IT Applications (1)			
6	113/03/25～ 113/03/31	Discussion on Papers about Emergent IT Applications (2)			
7	113/04/01～ 113/04/07	Discussion on Papers about Emergent IT Applications (3)			
8	113/04/08～ 113/04/14	Big Data Analytics: Introduction			
9	113/04/15～ 113/04/21	Big Data Analytics: Technologies			
10	113/04/22～ 113/04/28	Big Data Analytics: Applications			
11	113/04/29～ 113/05/05	Natural Language Processing: Introduction			

12	113/05/06～ 113/05/12	Natural Language Processing: Technologies	
13	113/05/13～ 113/05/19	Natural Language Processing: Applications	
14	113/05/20～ 113/05/26	IT Issues Discussion (1)	
15	113/05/27～ 113/06/02	IT Issues Discussion (2)	
16	113/06/03～ 113/06/09	IT Issues Discussion (3)	
17	113/06/10～ 113/06/16	Term Project Report (1)	
18	113/06/17～ 113/06/23	Term Project Report (2)	
Requirement	None		
Teaching Facility	Computer and Projectors		
Textbook(s)	Publications from various literature sources		
Suggested Readings	None		
Number of Assignment(s)	Not Applicable		
Grading Policy	Attendance: 10%, Regular Assessment: 20%, Midterm: 25%, Final: 25%, Other (Term Project): 20%		
Note	Regular assessment, Midterm, Final and Term Project may be comprised of oral or written reports, or implementation regarding emergent information technologies or applications.		

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Tamkang University
the first semester in the 2023-2024 academic year
Course Syllabus

Course Title	RESEARCH METHODOLOGY		Instructor	Chia-ping Yu	
Department/Year/Class		Course Details			
Information Management/2023-2024/ The first year		<div><input checked="" type="checkbox"/> Required</div> <div><input type="checkbox"/> Selective</div>	<div><input type="checkbox"/> 0 (One Semester)</div> <div><input checked="" type="checkbox"/> 1 (1st Semester)</div> <div><input type="checkbox"/> 2 (2nd Semester)</div> <div><input type="checkbox"/> 3 (3rd Semester)</div>	Credits	3
Course Introduction (50 to 100 words)	The purpose of this course is to introduce graduate students to general research methods for information systems and related issues. Specific topics contain fundamental concepts and terminologies in research, types of research methods and their respective design, research measurement and statistical analysis, and writing research report for publications.				
Course Schedule					
Week	Date	Subject/Topics			Note
1	113/09/09 ~ 113/09/15	Introduction to research, course policy and administration			
2	113/09/16 ~ 113/09/22	The scientific approach and alternative approaches to investigation			
3	113/09/23 ~ 113/09/29	The broad problem area and defining the problem statement			
4	113/09/30 ~ 113/10/06	The critical literature review			
5	113/10/07 ~ 113/10/13	Theoretical framework and hypothesis development			
6	113/10/14 ~ 113/10/20	Elements of research design			
7	113/10/21 ~ 113/10/27	Data collection methods: Introduction and interviews			
8	113/10/28 ~ 113/11/03	Data collection methods: Observation			
9	113/11/04 ~ 113/11/10	Data collection methods: Questionnaires			
10	113/11/11 ~ 113/11/17	Experimental design			

11	113/11/18～ 113/11/24	Measurement of variables: Operational definition	
12	113/11/25～ 113/12/01	Measurement: Scaling, reliability, validity	
13	113/12/02～ 113/12/08	Sampling	
14	113/12/09～ 113/12/15	Quantitative data analysis	
15	113/12/16～ 113/12/22	Quantitative data analysis: Hypothesis testing	
16	113/12/23～ 113/12/29	Qualitative data analysis	
17	113/12/30～ 114/01/05	Research project proposal	
18	114/01/06～ 114/01/12	Final exam	
Requirement			
Teaching Facility			
Textbook(s)	Sekaran, Uma/ Bougie, Roger J., <i>Research Methods For Business: A Skill Building Approach</i> , 8th Edition, (ISBN: 978-1-119-68353-7)		
Suggested Readings	Robert K. Yin, <i>Case Study Research: Design and Methods</i>		
Number of Assignment(s)	10		
Grading Policy	Exercises: 30%, Research project proposal: 30%, Middle exam: 20%, Final exam: 20%		
Note			

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Tamkang University
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Course Syllabus

Course Title	Seminar in Marketing Management		Instructor	WU, YA-LING	
Department/Year/Class		Course Details			
Information Management/2023-2024/ The first year		<input checked="" type="checkbox"/> Required <input type="checkbox"/> Selective	<input checked="" type="checkbox"/> 0 (One Semester) <input type="checkbox"/> 1 (1st Semester) <input type="checkbox"/> 2 (2nd Semester) <input type="checkbox"/> 3 (3rd Semester)	Credits	3
Course Introducton (50 to 100 words)	This course will beginning with introducing the fundamental concepts of Marketing Management, then will major focus on the E-Marketing, including planning and management.				
Course Schedule					
Week	Date	Subject/Topics			Note
1	113/02/19～ 113/02/25	Introduction to Network Marketing			
2	113/02/26～ 113/03/03	Ch 1 Defining Marketing for The New Realities			
3	113/03/04～ 113/03/10	Ch 2 Marketing Planning And Management			
4	113/03/11～ 113/03/17	Ch 1 & Ch 2.FUNDAMENTALS OF MARKETING MANAGEMENT			
5	113/03/18～ 113/03/24	Ch 3. Analyzing Consumer Markets			
6	113/03/25～ 113/03/31	Ch 6 Identifying Market Segments and Target Customers			
7	113/04/01～ 113/04/07	No class			
8	113/04/08～ 113/04/14	Ch 7 Crafting A Customer Value Proposition and Positioning			
9	113/04/15～ 113/04/21	Midterm Exam			
10	113/04/22～ 113/04/28	Ch10 Building Strong Brands			
11	113/04/29～ 113/05/05	Ch11 Managing Pricing And Sales Promotions			

12	113/05/06～ 113/05/12	Ch12 Managing Marketing Communications	
13	113/05/13～ 113/05/19	Ch13 Designing An Integrated Marketing Campaign in The Digital Age	
14	113/05/20～ 113/05/26	Ch15 Designing and Managing Distribution Channels	
15	113/05/27～ 113/06/02	Ch21 Socially Responsible Marketing	
16	113/06/03～ 113/06/09	Final report presentation	
17	113/06/10～ 113/06/16	Final report presentation	
18	113/06/17～ 113/06/23	Summary and Discussion	
Requirement			
Teaching Facility	Projector and computer on the Internet		
Textbook(s)	E-Marketing, by Judy Strauss and Raymond Frost		
Suggested Readings	E-Marketing		
Number of Assignment(s)	5		
Grading Policy	Participation 30% Assignment 50% Presentation 20%		
Note			

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