City University of Hong Kong
Course Syllabus

offered by Department of Information Systems
with effect from Semester A 2022 / 2023

Part I   Course Overview

Course Title:	Advanced Research Subjects in Information Systems
Course Code:	IS8011
Course Duration:	One Semester
Credit Units:	1
Level:	R8
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 is a short course that equips research students with knowledge of a specific research subject in information systems through a short, but intensive set of learning activities.   The course focuses on special subjects, which are not normally covered in regular courses available at City University of Hong Kong.   Students are expected to learn the subject matter and immediately apply it in a research context, typically through the write-up of a research article or discussion paper.

2.   **Course Intended Learning Outcomes (CILOs)**

No.	CILOs	Weighting	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Explain a specific IS research subject	15%			
2.	Build an understanding of the specific IS research directions	15%			
3.	Understand the IS research process of the specific research subject	20%			
4.	Evaluate, select, and apply appropriate methodologies to solve the IS research problem of the specific research subject	25%			
5.	Develop comprehensive research article or discussion paper following suitable research methodologies	25%	✓	✓	✓
		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 self-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. Teaching and Learning Activities (TLAs)

Intensive seminar mode of 2 to 4 weeks duration

TLA	Brief Description	CILO No.					Hours/week (if applicable)
		1	2	3	4	5	
TLA1: Seminar	The following items form the content of the seminar: 1. Introduction to and overview of a specific research subject. 2. Investigation of the specific research subject with theory building. 3. Detailed examination and critique of some related IS research work Participants are required to engage actively discussion sessions during each seminar.	✓	✓	✓	✓	✓	

4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.					Weighting	Remarks
	1	2	3	4	5		
Continuous Assessment: 100 %							
AT1. Discussion and Participation (30%): The seminar will be designed to provide opportunities for students to explore and discuss a specific research subject in depth.	✓	✓	✓	✓	✓	30%	
AT2. Critical Analysis (30%): Each student is required to present a critical analysis of the specific research subject which demonstrates the ability in understanding the specific subject, select an appropriate research methodology and apply it in a research context.	✓	✓	✓	✓	✓	30%	
AT3. Paper Development (40%): Each student is required to develop a research article or discussion paper of the specific research subject.	✓	✓	✓	✓	✓	40%	
						100%	

5. Assessment Rubrics

Applicable to students admitted in Semester A 2022/23 and thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
AT1 To AT3	Demonstrate the ability to explain a specific IS research subject	High	Significant	Moderate	Not even reaching marginal levels
	Demonstrate the capability to build an understanding of the specific IS research directions	High	Significant	Moderate	Not even reaching marginal levels
	Demonstrate the ability to understand the IS research process of the specific research subject	High	Significant	Moderate	Not even reaching marginal levels
	Demonstrate the capability to evaluate, select, and apply appropriate methodologies to solve the IS research problem of the specific research subject	High	Significant	Moderate	Not even reaching marginal levels
	Demonstrate the capability to develop comprehensive research article or discussion paper following suitable research methodologies	High	Significant	Moderate	Not even reaching marginal levels

Applicable to students admitted before Semester A 2022/23

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
AT1 To AT3	Demonstrate the ability to explain a specific IS research subject	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Demonstrate the capability to build an understanding of the specific IS research directions	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Demonstrate the ability to understand the IS research process of the specific research subject	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Demonstrate the capability to evaluate, select, and apply appropriate methodologies to solve the IS research problem of the specific research subject	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Demonstrate the capability to develop comprehensive research article or discussion paper following suitable research methodologies	High	Significant	Moderate	Basic	Not even reaching marginal levels

Part III   Other Information

1.   Keyword Syllabus

Introduction to Economics of IS Research. Specific topics covered are:
1.   Market competition, product selection, product differentiation
2.   Price discrimination, information goods and bundling of information goods
3.   Electronic Markets

The IS Research Process: identifying a research problem; theory building; problem motivation; research design using analytical modelling methodologies (such as game theory); developing research proposals; publishing research results.

2.   Reading List
2.1   Compulsory Readings

1.	Nil

2.2   Additional Readings

Market Competition, Product differentiation, Network Externalities

Tirole, J. 1989. The Theory of Industrial Organization, Chapter 2 and 7. (Background reading)

Varian, H., and Shapiro, C. 1998. Information Rules. Chapter 7 (background).

Katz, M., and Shapiro, C. 1985. "Network Externalities, Competition and Compatibility", *American Economic Review,* 75, 424-440.

Kreps, D., and Scheinkman, J. 1983. "Quantity Precommitment and Bertrand Competition yield Cournot outcomes", *Bell Journal of Economics*, 14(2), 326-337.

Hotelling, H. 1929. "Stability in Competition", *Economic Journal*, 39 (153), 41-57.

Salop, S. C. 1979. "Monopolistic Competition with Outside Goods", *The Bell Journal of Economics*, 10, 141-156.

Spence, M. 1976. "Product Differentiation and Welfare", *American Economic Review,* 66(2), 407-414.

Shaked, A., and Sutton, J. 1982. "Relaxing Price Competition through Product Differentiation", *Review of Economic Studies*, 49(1), 3-13.

Shaked, A., and Sutton, J. 1990. "Multiproduct Firms and Market Structure", *Rand Journal of Economics*, 21(1), 45-62.

Berry, S. 1994. "Estimating Discrete Choice Models of Product Differentiation", *Rand Journal of Economics*, 25(2), 242-262.

Mussa, M., and Rosen, S. 1978. "Monopoly and Product Quality", *Journal of Economic Theory*, 18(2), 301-317.

Price Discrimination, Information Goods and Bundling of Information Goods

Shapiro, C., and Varian, H. 1998. Information Rules (Chapter 2 and 3). (Background reading)

Tirole, J. 1989. The Theory of Industrial Organization, Chapter 3.

Varian, H. 1985. "Price Discrimination and Social Welfare", *American Economic Review*, 870-875.

Bakos, Y., and Brynjolfsson, E. 1999. "Bundling Information Goods: Pricing, Profits and Efficiency", *Management Science,* 45(12), 1613-1630.

Prasad, A., Venkatesh, R., and Mahajan, V. 2010. "Optimal Bundling of Technological Products with Network Externality", *Management Science*, 56(12), 2224-2236.

Chen, Y., and Png, I. 2003. "Information Goods Pricing and Copyright Enforcement: Welfare Analysis", *Information Systems Research*, 14(1), 107-123.

Choudhary, V. 2010. "Use of Pricing Schemes for Differentiating Information Goods", *Information Systems Research*, 21(1), 78-92.

Electronic Markets

Bakos, Y. 1997. "Reducing Buyer Search Costs: Implications for Electronic Marketplaces", *Management Science,* 43(12), 1660-1675.

Lal, R., and Sarvary, M. 1999. "When and How is the Internet Likely to Decrease Price Competition", *Marketing Science,* 18(4), 485-503.

Dewan, R., Jing, B., Seidmann, A. 2003. "Product Customization and Price Competition on the Internet", *Management Science*, 49(8), 1055-1070.

Sankaranrayanan, R., and Sundararajan, A. 2010. "Electronic Markets, Search Costs, and Firm Boundaries", *Information Systems Research*, 21(1), 154-169.

Bhargava, H., and Choudhary, V. 2004. "Economics of an Electronic Intermediary with Aggregation Benefits", *Information Systems Research*, 15(1), 22-36.

Caillaud, B., and Jullien, B. 2003. "Chicken & Egg: Competition among Intermediation Service Providers", *RAND Journal of Economics*, 34(2), 309-328.