City University of Hong Kong
Course Syllabus

offered by School of Data Science
with effect from Semester A 2019/20

Part I   Course Overview

Course Title: Dissertation

Course Code: SDSC6006

Course Duration: Two Consecutive Semesters

Credit Units: 6

Level: P6

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 course aims to develop a student's expertise in his/her chosen subject area through application of data science knowledge and techniques, and demonstrate a student's ability to present and organize subject knowledge scholarly in an independent research.

2. **Course Intended Learning Outcomes (CILOs)**
    (CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Carry out independent study for problem solving and solution seeking.	20%	✓	✓	
2.	Integrate data science knowledge and techniques of diverse subjects in formulating and analyzing practical problems.	20%	✓	✓	
3.	Assess critically appropriateness of research methodology and strategies in approaching problems.	20%	✓	✓	
4.	Interpret insights and novel findings in conducted data analytics studies.	20%	✓		✓
5.	Prepare a coherent dissertation with effective presentation of literature and analysis of results.	20%		✓	✓
		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)
(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4	5		
Consultation	Consultation sessions will be made up via instructor and students to assist students in identifying appropriate project topics and to supervise the project progress	✓	✓	✓	✓			13 hours/sem
Individual works	Learn through individual work to help students develop the independent capability of formulating and solving problems via sufficient diligence		✓	✓	✓	✓		26 hours/sem

Lectures cover not only the narrowly focused techniques in engineering economy but also the wider issues of the environment that affect engineering economic decision making. Students are expected to participate in class discussion when needed.

4. Assessment Tasks/Activities (ATs)
(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.						Weighting	Remarks
	1	2	3	4	5			
Continuous Assessment: __100__ %								
Project Proposal		✓	✓				20%	
Project Milestone Meetings	✓	✓	✓	✓			20%	
Dissertation	✓	✓	✓	✓	✓		40%	
Oral Presentation					✓		20%	
Examination: __0__ %								
							100%	

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Project Proposal	20%	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Project Milestone Meetings	20%	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Dissertation	40%	High	Significant	Moderate	Basic	Not even reaching marginal levels
4. Oral Presentation	20%	High	Significant	Moderate	Basic	Not even reaching marginal levels

Part III   Other Information (more details can be provided separately in the teaching plan)

1.   Keyword Syllabus
(An indication of the key topics of the course.)

No formal syllabus. Students will be required to undertake individually supervised research and dissertation preparation.

2.   Reading List
2.1   Compulsory Readings
(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

NIL

2.2   Additional Readings
(Additional references for students to learn to expand their knowledge about the subject.)

NIL