

**THE UNIVERSITY OF HONG KONG
HKU BUSINESS SCHOOL**

ECON3233 Data Analytics in Digital Economy

A. General Information:

Instructor: Dr. Pai Steven Xu

Email: paixu@hku.hk

Consultation: TBD

Pre-requisites: ECON2210 Intermediate Microeconomics or equivalent; ECON2280 Introductory Econometrics or equivalent.

B. Course Description:

This course will explore the main features of the digital economy, and a number of related competition and regulatory issues. The digital technologies create or enable radically new business opportunities and shape the ways they operate. Such revolution also reshaped the market structures and their dynamics of traditional businesses like publishing, entertainment, and banking. Therefore, it is crucial to understand how the Internet, sharing economy, social networks, BigData, and mobile communications can work and create values in the digital society. The course aims to introduce the conceptual foundations for understanding the relations between various parties and agents in the digital economy. The course focuses on two aspects throughout various topics. One views the topics from the policy- oriented standpoint - whether business practices and contracts in a digital economy may depart from efficient behavior, and in which cases they may be beneficial or detrimental to society. The other focus of the course is on how data analytics can help analyze the digital business models and be applied on cases, despite the usefulness of concepts, models, and economic principles.

C. Course Objectives:

Generally speaking, the knowledge gained from this course will help students to acquire a toolkit for getting adapted to the emerging circumstances in the new digital economy, and for shaping rational anticipation of the impact of fast evolving technologies. The course expects to help students to

- understand the fundamentals of the digital economy;
- comprehend the nature and extent of the digital economy;
- analyze the economic impact of advancement in technological innovation;
- evaluate the various challenges in policies and regulations that the digital economy presents;
- be aware of the likely global implications of digital economy development.

D. Course Learning Outcomes:

Upon completion of this course, the student is expected to be able to

- CLO1. develop intuition from theories and apply them in analysis of empirical cases;
- CLO2. conduct strategical thinking and make knowledge based decisions when facing digital completion;
- CLO3. participate in developing business models and innovation processes in the digital economy;
- CLO4. gain perspectives on regulation and policy in digital markets; and
- CLO5. understand ethical issues of the digital economy and organizational use of data.

E. Course Outline:

- Introduction
- Trading Platform and Network
- Personal Data, Price Discrimination and Privacy
- Experience Goods, Online Reviews and Recommender Systems
- Innovation and Intellectual Property Rights
- Sponsored Auctions and Match-Maker
- Competition Policy and Regulation in Digital Markets

F. Teaching and Learning Activities & Method of Evaluation:

The course will have the following Teaching and Learning Activities: (T&L)

Course Teaching and Learning Activities	Expected contact hour	Study Load (% of study)
T&L1. (Lecture.) Instructor will give lectures on major concepts and issues, including Case-study and Analysis, software programming etc.	34	27
T&L2. (Research projects.) Students will be asked to work on individual or group research projects.	32	25
T&L3. (In-class presentation and discussion.) Students are expected to present their progress and engage in discussion during lecture meetings. Most in-depth learning takes place when students actively engage themselves in discussions thought presenting and sharing their ideas.	12	10
T&L4. (Consultation.) Professor holds weekly consultation hours to answer students' questions. Students are also encouraged to discuss questions with the instructor by email or a forum in the class website.	12	10
T&L5. (Assignments and Self-study.) Students are expected to work on the course materials individually.	40	28
Total	130	100%

Your performance in the course will be evaluated based on the following:

assessment methods	weight
attendance & participation	15%
assignments & presentation	35%
final exam	50%

G. Academic Conduct:

The University Regulations on academic dishonesty will be strictly enforced! Please check the University Statement on plagiarism on the web (<http://www.hku.hk/plagiarism/>). Academic dishonesty is behavior in which a deliberately fraudulent misrepresentation is employed in an

attempt to gain undeserved intellectual credit, either for oneself or for another. It includes, but is not necessarily limited to, the following types of cases:

- (i) Plagiarism: The representation of someone else's ideas as if they are one's own. Where the arguments, data, designs, etc., of someone else are being used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references. The references must fully indicate the extent to which any parts of the project are not one's own work. Paraphrasing of someone else's ideas is still using someone else's ideas, and must be **acknowledged**.

- (ii) Unauthorized Collaboration on Out-of-Class Projects: The representation of work as solely one's own when in fact it is the result of a joint effort.

Where a candidate for a degree or other award uses the work of another person or persons without due acknowledgement, the relevant Board of Examiners may impose a penalty in relation to the seriousness of the offence. The relevant Board of Examiners may report the candidate to the Senate, where there is prima facie evidence of an intention to deceive and where sanctions beyond those in (i) might be invoked.

Appendix:

Faculty Learning Goals (FLGs)

- FLG1. Acquisition and internalization of knowledge of the programme discipline
- FLG2. Application and integration of knowledge
- FLG3. Inculcating professionalism
- FLG4. Developing global outlook
- FLG5. Mastering communication skills
- FLG6. Cultivating leadership

Table 1: Alignment of Faculty Learning Goals and Course Learning Outcomes

Faculty Learning Goals	Course Learning Outcomes
FLG1	CLO1 to CLO5
FLG2	CLO1 to CLO5
FLG3	CLO2 to CLO5
FLG4	CLO3 to CLO5
FLG5	CLO3 to CLO5
FLG6	CLO2 to CLO4

Table 2: Alignment Among Course Intended Learning Outcome, Teaching and Learning Activities and Assessment Tasks:

Course Learning Outcomes	Teaching and learning activity (TLA)	Assessment Tasks
CLO1	TLA1, 5	Participation, Project, Presentation, Final Exam
CLO2	TLA1, 2, 3	Participation, Project, Presentation, Final Exam
CLO3	TLA1, 2, 3, 4	Participation, Project, Presentation, Final Exam
CLO4	TLA4, 5	Participation, Project, Presentation, Final Exam
CLO5	TLA3, 5	Participation, Project, Presentation, Final Exam

Standards of Assessment *Definition and description of grades*

High distinction	(A+, A, A-) Strong evidence of superb ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate, and synthesis.
Distinction	(B+, B, B-) Strong evidence of the ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate, and synthesis.
Credit pass	(C+, C, C-) Evidence of adequate ability to fulfill the intended learning outcomes of the course at low levels of learning such as describe and apply but not at high levels of learning such as evaluate and synthesis.
Pass	(D) Evidence of basic familiarity with the subject.
Fail	(F) Little evidence of basic familiarity with the subject.