

# **COURSE SYLLABUS**

## **UCUG 1905**

### **The Impact and Value of Technology Innovation**

#### **Fall 2025**

#### **COURSE INFORMATION**

- Times and Days: 9:00 AM – 11:50 AM, Fridays
- Credit Points: 3
- Course website: Canvas
- Class venue: Face-to-face  
Classroom: Rm 150, E1

#### **INSTRUCTOR CONTACT INFORMATION**

- Instructor: Yi Cai
- Office Location: Rm 308, W2
- Office Phone: +86-20-8833 5958
- Email Address: yicai@hkust-gz.edu.cn

#### **STUDENT HOURS**

2:30 PM – 4:30 PM, Fridays, In-person and/or Zoom  
Meeting ID: 803 625 9020. No passcode is needed.

#### **COURSE DESCRIPTION**

The focus is the impact of the current technological evolution on the creation of value in the global economy, society in general, and personal lives. Students will study how science and technology developments have been transformed into innovative products and services. Case studies and examples will be drawn from well-known successes and failures of technology companies in Silicon Valley and Asia. Business issues such as marketing of disruptive innovations and ethics will be explored. Special emphasis will be given to intellectual property issues. Students will receive extensive exposure to existing and emerging technology innovations and establish the skills to analyze them from multiple perspectives.

#### **INTENDED LEARNING OUTCOMES (ILOs)**

On successful completion of the proposed course, students will be able to:

1. Describe the scientific and engineering basis of technology innovation;
2. Explain how commercial and social value is created through technology innovation;
3. Articulate the development, management, and lifecycle of technology innovation;
4. Analyze successful and unsuccessful case studies of technology innovation;

## ASSESSMENT SCHEME

### GRADING PERCENTAGE

Course grades are based on a weighted grading scale of 100%. The breakdown for the course is as follows:

Assessment Task Category	# of Activities	Percentage Grade Weight	Assessing Course ILOs
Class Activities	TBD	10%	1 - 4
Homework Assignments	5	30% (6% each)	1 - 4
Mid-term Test	1	25%	1 - 3
Final Exam	1	25%	1 - 3
Group Presentation	1	10%	4
	<b>Total</b>	<b>100%</b>	

This course will be assessed using criterion-referencing and grades will not be assigned using a curve. The class activities, homework assignments, mid-term test and final exam will consist of mainly multiple-choice questions, fill-in-blank questions and short-answer questions. The grading will be straightforward based on the referenced correct answers. The group presentation will follow the rubrics below.

Oral Communications	Level of Mastery			
	4	3	2	1
<b>Organization</b> Clear and consistent in organization pattern - specific introduction and conclusion, sequenced materials within the body, and transitions.	<b>20 points</b> Organization pattern (specific introduction and conclusion, sequenced materials within the body, and transitions) is clearly and consistently observable and is skillful, and make the content of the presentation cohesive.	<b>15 points</b> Organization pattern (specific introduction and conclusion, sequenced materials within the body, and transitions) is clearly and consistently observable within the presentation.	<b>10 points</b> Organization pattern (specific introduction and conclusion, sequenced materials within the body, and transitions) is intermittently observable within the presentation.	<b>5 points</b> Organization pattern (specific introduction and conclusion, sequenced materials within the body, and transitions) is not observable within the presentation.
<b>Language</b> Language in presentation is appropriate to audience, and supports the effectiveness of the presentation.	<b>20 points</b> Language choices are imaginative, memorable and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	<b>15 points</b> Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	<b>10 points</b> Language choices are mundane commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	<b>5 points</b> Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
<b>Delivery</b> Appropriate delivery techniques and audience satisfaction	<b>20 points</b> Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	<b>15 points</b> Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	<b>10 points</b> Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	<b>5 points</b> Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
<b>Supporting Materials</b> Appropriate references to information or analysis which supports the presentation or establishes the presenter's credibility / authority on the topic.	<b>20 points</b> A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which significantly supports the presentation or establishes the presenter's credibility /	<b>15 points</b> Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which generally supports the presentation or establishes the presenter's credibility / authority on the topic.	<b>10 points</b> Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis which partially supports the presentation or establishes the presenter's credibility / authority on the topic.	<b>5 points</b> Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis which minimally supports the presentation or establishes the presenter's credibility / authority on the topic.
<b>Central Message</b> Central message is clear and consistent with the supporting material.	<b>20 points</b> Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported).	<b>15 points</b> Central message is clear and consistent with the supporting material.	<b>10 points</b> Central message is basically understandable but is not often repeated, and is not memorable.	<b>5 points</b> Central message can be deduced, but is not explicitly stated in the presentation.

## GRADING SCALE

A+	A	A-	B+	B	B-
97-100	94-97	90-94	87-90	84-87	80-84
C+	C	C-	D	F	
77-80	74-77	70-74	60-70	<60	

## STUDENT LEARNING RESOURCES

1. Lecture PPT notes
2. (Recommended) Technologies for Development: From Innovation to Social Impact, Silvia Hostettler, Samira Najih Besson, Jean-Claude Bolay, 2018, Springer
3. (Recommended) Strategic Management of Technological Innovation 7th Edition, Melissa Schilling, 2023, McGraw Hill
4. (Recommended) The Future of Disruptive Technologies: Impacts on Business, Workforce, and Societies, Srikanth Gaddam, 2020



## ASSIGNMENTS AND ACADEMIC CALENDAR

Week	Topics	Tasks and Weekly ILOs
09/01-09/07	Introduction of Technology Innovation	ILO #1
09/08-09/14	Sources of Innovation	HW #1, ILO #1
09/15-09/21	Types and Patterns of Innovation	ILO #1
09/22-09/28	Technical and Engineering Issues in Technology Innovation	HW #2, ILO #1
10/09-10/12	Experiencing Technologies	ILO #1 and #2
10/13-10/19	Business Issues in Technology Innovation	Mid-term, HW #3, ILO #2
10/20-10/26	Ethical Issues in Technology Innovation	ILO #2
10/27-11/02	Social Impacts of Technology Innovation	HW #4, ILO #2
11/03-11/09	Management of Technology Innovation	ILO #3
11/10-11/16	Lifecycle of Technology Innovation	HW #5, ILO #3
11/17-11/23	Case Studies in Industry	Group presentation, ILO #4
11/24-11/30	Case Studies in Agriculture	Group presentation, ILO #4
12/01-12/05	Case Studies in Healthcare	Group presentation, ILO #4
12/11-12/23	Final Exam	

\* These descriptions and timelines are subject to change at the discretion of the instructor.

## COURSE POLICIES

### ACADEMIC INTEGRITY

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST(GZ)'s Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to Regulations for Academic Integrity and Student Conduct for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

**COMMUNICATION AND FEEDBACK**

Canvas is the primary online instructional and course communications platform. Assessment marks for individual assessed tasks will be communicated via Canvas within two weeks of due dates. Students can access the course syllabus, assignments, grades, and learner support resources. Students are encouraged to protect their login credentials, complete a Canvas orientation and log in daily to course.

**MAKE-UP EXAMS**

Exams can only be rescheduled due to a university-accepted, excused absence or for arrangements made with the instructor prior to the originally scheduled date.

**LATE WORK**

All assignments are due at the date and time specified by the instructor or as otherwise noted. Late work will NOT be accepted.

**COURSE AI POLICY**

AI tools can be used with proper citations and references.