

Nanyang Technological University

Nanyang Business School

AB1401 Technological Innovations and Developments

Course Aims/Description

Technological innovations and developments continue to profoundly change our world. Digital transformation, through technological innovations and developments, change business activities and processes, consumption patterns, socio-economic structures, laws and policies, and culture. It makes obsolete currently held technology-related competencies while, at the same time, demanding the learning of new competencies.

This course provides students with the foundational, contemporary and intellectual skills to navigate the ever-changing landscape of technological innovations and developments. Specifically, this course explores how information technologies (IT) work, are deployed, and used to create new ventures. A range of topics will be discussed in this course ranging from enduring issues such as hardware, software, and networks as well as newer technologies such as blockchains, the internet of things, and artificial intelligence. At the completion of this course, you will gain foundational competencies in IT and appreciate the transformative power of IT.

Intended Learning Outcomes

By the end of this course, you (as a student) would be able to:

1. Integrate basic principles to explain the hows and whys of IT;
2. Apply IT to solve routine business problems and communicate business insights;
3. Explain the opportunities afforded by IT and their limitations;
4. Provide insights into the implications of IT for various stakeholders including IT security, data privacy, and ethical considerations.

Course Content

This course adopts a blended learning approach where e-learning and teaching in a seminar setting are combined to achieve learning objectives. Weekly seminars provide a channel to exchange understanding of foundational concepts and to develop IT skills. You will learn through a wide range of learning materials, such as online references, videos, case presentations, class discussions and collaborative work.

Planned Weekly Schedule

Week	Topic	Case Presentation	Assessments
1	Course overview		
2	Hardware and Software		
3	Telecommunications	Case – Cloud Computing	
4	Cybersecurity	Case – Next Gen Wireless	
5	E/M-Commerce	Case – SingHealth Data Breach	
6	Blockchain: The Applications	Case – Amazon	
7	Internet of Things		Quiz 1
	Mid-Semester Break		
8	Excel I	Case - Filecoin	
9	Excel II	Case – Maersk	
10	Business Analytics	Case - Airbnb	
11	E-learning Week		Microsoft Excel Assignment
12	Artificial Intelligence	Case – Google Analytics	
13	Review	Case – AI Augmentation	Quiz 2

Assessments and Feedback

Seminars will be interactive and student inputs are an essential component that will be assessed. Feedback will be provided during the class discussions. Instructor will grade e-learning assignment and group project and discuss common mistakes and weaknesses.

The coursework components and their weights are presented here:

Component	Weightage	Type	
Quiz 1 and 2 (Multiple Choice)	40%	Individual	
Class Participation (In Class Discussions)	10%	Individual	
Excel Assignment	10%	Individual	
Case Presentation	10%	Individual	
Case Content	10%	Team	
Semester Project	20%	Team	
Total	100%		