Module code	MGT7A4	**Level**	7
Module title	Technology and Innovation	**Credit value**	10
Programme(s) on which the module is taught	MA Management MA Entrepreneurship	**ECTS Credits**	5
		Notional learning hours	100

1. Pre-requisite modules

None.

2. Module aims and objectives

Economic growth, increased wealth, higher standards of living, and better quality of life all depend upon productivity increases. And increased productivity is primarily a function of technology and innovation.

This course will focus on both the macro aspects – how technology and innovation have contributed to the making of the modern world – and the micro aspects – how technology and innovation influence business.

The course will also focus on what factors – social, political, economic, cultural, geographic, and religious – have been conducive to or detrimental to the success of technology and innovation, on both the macro and the micro levels.

There will be special emphasis on the management of technology and innovation, with case studies in different industries and countries used to illustrate and analyse the concepts and ideas covered.

This module will link to Strategy and Decision Making, as the management of innovation, particularly disruptive innovation, is fundamental to a successful corporate strategy – indeed to corporate survival.

3. Learning outcomes

Knowledge and understanding

Upon successful completion of this module:

A1: The student will demonstrate a systematic understanding and knowledge of management and other relevant business disciplines required to be an effective manager.

A2: The student will demonstrate an understanding of current management theoretical and methodological approaches and how these affect the way business management knowledge and thinking are interpreted in managerial practice.

Skills

Upon successful completion of this module:

B1: The student will develop critical responses to current / existing business management theoretical discourse, methodologies and practises.

B2: The student will demonstrate the ability to analyse, distil and solve practical business management problems, in complex situations, through critical evaluation and sound judgement.

B3: The student will demonstrate flexibility and creativity in the application of knowledge in unfamiliar and ambiguous contexts; managing uncertainty and complexity and demonstrate an ability to synthesize ideas and information in innovative ways.

C1: Competency in essential practical skills to autonomously adapt performance and capabilities in multiple contexts.

C3: Incorporate a critical ethical dimension to their studies, managing the implications of ethical and cross-cultural issues and work proactively with others to formulate solutions.

D1 Develop the ability for critical self-evaluation and reflection based on constructive feedback

D2 Identify, evaluate and develop competencies and qualities to support effective interpersonal communication skills in a range of complex, ambiguous and specialized / generalized contexts

D3 Further develop skills associated with working and delivering as part of a team

4. Indicative content

The module will cover a number of essential topics, including but not restricted to the following:

- How technology and innovation shape the global political economy
- Technology and the rise of the west
- Creative destruction and disruptive innovation
- Technology and (the decline of?) globalization
- Bringing new technologies to market
- The nature of technological innovation
- What accounts for the success of innovation
- Failures in innovation
- Innovation and ethics
- Strategy, innovation, and imagining the future
- Innovation clusters
- Successfully managing innovation in an organization

5. Learning and teaching methods

The module will be organized around a combination of lectures, seminars and workshop activities. We will extensively use case studies and articles / papers to illustrate the relevant issues and provide a basis for discussion and analysis.

In addition to case study analyses, the students may engage in structured debates, role playing exercises, and scenario planning.

10 credit module – 100 learning hours	
Directed learning	**33 hours**
Seminars & Workshops	33
Self-directed learning	**67 hours**
Preparation for class	36
Preparation for assessments	31
Total	100

6. Assessment and relative weightings

The students will analyse the reasons for the success and / or failure of existing innovations and then apply the lessons learned from this exercise to evaluate the probable success and consequences of nascent technological innovations. Although they will work in groups, a significant portion of the assessment is individual. Group Presentation 50% / Individual Report 50%.

7. Mapping of assessment tasks for the module

Assessment tasks	**A1**	**A2**	**B1**	**B2**	**B3**	**C1**	**C3**	**D1**	**D2**	**D3**
Group Presentation	x	x	x	x	x	x	x	x	x	x
Individual Report	x	x	x	x	x	x	x		x	

8. Key reading

Core Reading: Schilling, Melissa (2017) *Strategic Management of Technological Innovation,* 5th edition, New York: McGraw-Hill

Other suggested reading: Gibson, William (1984) *Neuromancer*, London: Gollancz (new edition 2016). Hughes, Thomas Parker (1993) *Networks of Power: Electrification in Western Society, 1880 – 1930*, Baltimore, MD: Johns Hopkins University Press. Isaacson, Walter (2011) *Steve Jobs*, London: Little, Brown. Levinson, Marc (2006) *The Box*, Princeton, NJ: Princeton University Press. Segars, Albert (2018) “Seven Technologies Remaking the World”, *MIT Sloan Management Review*, 9 March 2018.

Senor, Dan and Saul Singer (2009) *Start-up Nation,* New York and Boston: Twelve.
White Jr., Lynn (1962) *Medieval Technology and Social Change*, London: Oxford University Press.