

Module code	TBC	Level	5
Module title	Emerging Technologies: from Web3 to the Metaverse	Credit value	10
Common/Core/Elective	Special Elective	ECTS Credits	5
		Notional learning hours	100
Courses on which the module is taught	All	Teaching Period	Autumn/ Spring

1. Module description

This module aims to equip you with the knowledge and skills to deal with the rapid growth and change of technology and show how new and emerging technologies can be applied to different industries and business contexts. This module will consider the emerging technology landscape by covering technologies such as artificial intelligence (AI), machine learning, blockchain, internet of things (IoT) and metaverse applications and immersive technologies (VR & AR). You will understand technological trends, identify the opportunities and challenges that new and emerging technologies may bring, and identify cases and industries that could face disruption from new and emerging technologies.

The focus is not just introducing you to the emerging technologies but showing you how to examine the disruptions on various business models and functions, and how to identify opportunities for innovation. You will also examine the connections between technologies.

2. Learning outcomes

Upon successful completion of this module you will be able to:

Innovation (MLO 02)

Analyse and develop value propositions for digital solutions combining curiosity and creativity.

Decision-making (MLO 04)

Analyse and reflect on different ideas, including your own, to inform decision-making regarding the application of emerging technologies.

Digital Data and Tools (MLO 06)

Analyse and use digital tools and data responsibly within the technological landscape.

3. Learning and teaching methods

This module will expose you to an interactive and immersive experience. New and emerging technologies are impacting every aspect of organisation from transforming operational efficiency to enhanced customer journey and experience. The more we know about these technologies that are driving innovation, the better equipped you will be to implement them successfully. You will therefore be invited to not only learn about the key emerging technologies, its driving forces and applications, but also experiment with these and apply them in practice.

Each week, you will be introduced to a selection of topics, theories and professional practices, designed to allow you to historically map technological developments, gain an

understanding of the role of technology within businesses and society, explore the connections between technologies as part of larger digital ecosystem, consider the moral, ethical and societal implications of such technologies, experiment with its uses and applications, and imagine the future of work and society. This practical environment of applied experimentation and discovery is designed to help you understand the different emerging technologies and applications, and stimulate critical debate focused on imagining and creating technology-based solutions. You will also be encouraged to develop critical and innovative thinking, reflecting on how to address real-world problems through technologies.

Content will be delivered in an interactive learning environment. Varied learning and teaching methods are employed on this module, such as: workshop/ lab sessions, interactive tutorials, guided activities, self-directed exercises, and group discussions. These different methods, along with feedback and formative assessment(s), will prepare you for your summative assessment, an opportunity to showcase your learning journey and how you have met the learning outcomes of the module.

Learning hours	
Directed learning	36 hours
Workshops/classes	36
Guided/Self-guided learning	64 hours
Total	100

4. Assessment, formative feedback and relative weightings

Assessment: Portfolio (Group Assessment)

Weight (%): 100

You and your group should identify one real-life problem which can be addressed via technological applications, analysing and developing the value proposition of your proposed solution. You will be required to reflect on different ideas to explore this problem in more depth and apply innovative thinking on how to best address it. You will be required to research and make use of different digital tools and data. You are encouraged to make use of different types of media (for example, video, images, graphs, written pieces, etc) in order to produce your portfolio, which should be displayed in a Virtual Reality gallery.

Each summative assessment will be preceded by an opportunity of formative assessment accompanied by formative feedback

Mapping of assessment tasks for the module									
Assessment tasks	MLO2	MLO4	MLO6						
Portfolio	x	x	x						

5. Indicative resources

Boczkowski, P.J.; Mitchlstein, E. (2021) *The Digital Environment: How We Live, Learn Work, and Play Now*, MIT Press.

Loberl, E. (2022) *The Equality Machine: Harnessing Digital Technology for a Brighter, More Inclusive Future*, PublicAffairs.

Sandler, R.L. (2014) *Ethics and Emerging Technologies*, Palgrave Macmillan.

Additional Resources:

<https://www.thevrara.com/blog>

<https://www.wired.com/tag/virtual-reality/>

<https://www.aicpa.org/category/resources/technology/emerging-technologies>

https://www.ted.com/talks/joy_buolamwini_how_i_m_fighting_bias_in_algorithms?utm_campaign=tedsread&utm_medium=referral&utm_source=tedcomshare

<https://enterpriseproject.com/article/2019/7/emerging-technologies-8-ted-talks>

<https://online-journals.org/index.php/i-jet>

<https://onlinelibrary.wiley.com/journal/25781863>

<https://ndlsjet.com/>