

FIN539 Metaverse with Web3.0

Level: 5

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JAN

Synopsis:

FIN539 Metaverse with Web3.0 provides insights into the future development of the Metaverse with Web3.0. Students will:

1. Understand the technology used in the Metaverse and the impact of the convergence of technology with finance,
2. Learn about the risk and valuation of Web3.0 in MetaFi, GameFi, SocialFi, and other new business models and design thinking,
3. Apply the three essential concepts of the Metaverse and Web3.0: Non-Fungible Token (NFT), Decentralised Finance (DeFi) and Decentralised Autonomous Organisations (DAO), and
4. Be able to use and harness the Metaverse for the good of society.

Prior knowledge of AI, blockchain, cryptocurrency, smart contracts, NFTs, DeFi, DAO, and cryptography is needed to appreciate this course. The content prepares students to do postgraduate academic research and pursue practical projects in the MetaFi industry. There will be programming, and there will be sessions with guest speakers from the MetaFi industry.

Topics:

- Metaverse Technology I: Artificial Intelligence, Blockchain, Cloud, Data Analytics
- Metaverse Technology II: IoT, Network, Geospatial Technologies, Engines, 3D Modeling, Immersive Technology, XR/AR/VR/MR, Chip Design, edge/cloud/quantum computing and others
- Design Thinking: Hardware, Software, Algorithms, Protocol, Platform, UI/UX and Trust
- Digital Twins, Mirror World and Manufacturing
- Economics: Regenerative, Embedded, Sustainable, Experimental, Exponential, Scalability, Lean Methodology, Singularity, Contribute to Own and Decentralisation
- Non-Fungible Tokens (NFTs): types, scarcity, creation, and valuation
- Decentralised Finance (DeFi): types of market makers, designs and applications
- Decentralised Autonomous Organisations (DAO): Communities, governance and use cases
- GameFi and SocialFi: Pay to Earn, Guilds, Scholars, Managers, and design analysis
- Convergence of Metaverse and Web3.0: Practical applications
- Risk, Cybersecurity, Legal, Regulation, Compliance, Intellectual Property, Consumer Protection, and Asset Allocation
- Ethics, Culture, Privacy Protection, and Governance
- Currency and Fungible Assets: Cryptocurrency, Government Coins, Central Bank Digital Currency (CBDC), and Fungible Tokens

Learning Outcome:

- Appraise the technological needs for the Metaverse, including tools to create, list and trade on platforms for NFTs and DeFi
- Assess the risks and challenges for the Metaverse and Web3.0
- Critique valuation models and/or methodologies for “assets” in the Metaverse
- Compare existing Metaverse projects
- Create digital assets and conduct sales and purchases in the Decentralised Metaverse
- Hypothesise business models in the Metaverse context incorporating consideration of risk legal, regulation, ethics and governance

Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	GROUP BASED ASSIGNMENT 1	40
	PARTICIPATION 1	10
Overall Examinable Components	ECA	50
Total		100