

FIN545 Technological Innovations in Finance

Level: 5

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JULY

Synopsis:

FIN545 Technological Innovations in Finance examines recent radical and disruptive innovations in financial services industry, analyses the underlying drivers, challenges as well as opportunities of financial technology (“FinTech”) businesses, and discusses the impact of digital technologies on wealth management practices. The course first provides an overview of how technologies have transformed the financial services industry by enabling innovative development of applications, processes, products, and business models. Using case studies in areas such as financial information, payments, and financing, the course requires students to analyse the common drivers and technological advancements underlying sustainable Fintech businesses, as well as the challenges and roadblocks ahead. The course then explores how the “supply side” of new technologies can combine with the mega-trend of digitalization of the demand side in impacting wealth management business. The course discusses the prospects of integrating robotechonology, machine learning and gamification into investing and wealth management practices, creating innovations such as digital financial advisor and automated portfolio rebalancing, and fully automated algorithmic investment planning as well as Goal Based Investing (GBI).

Overall, the course is aimed at providing fundamental understanding of financial innovations and relevant digital technologies and preparing students for new technologies that might impact wealth management practice and the profound changes ahead.

Topics:

- Digital banking, payment innovations, and financial inclusion
- P2P lending, crowdfunding and other alternative financing
- Big data and data analytics
- Cyber security and data protection
- Case studies: Fintech startups and the incumbent
- Managing projects with open source technologies and platforms
- Regulatory challenges in FinTech and governance framework to promote responsible financial innovations
- Robo-technology and digital financial advisor
- Automated algorithmic investment planning and Goal Based Investing (GBI)
- Machine learning, gamification and investing
- Regulatory edge of integrating new technologies into wealth management

Learning Outcome:

- Evaluate different classes of financial information systems such as payment systems, funds transfer networks, trading and settlement systems
- Critique P2P lending, crowdfunding, and other alternative financing mechanisms
- Assess the tools, trends and best practices in big data analytics and data protection in finance industry
- Examine the opportunities and challenges faced by FinTech startups and their incumbents
- Appraise the application of robo-technology, machine learning and gamification in investing and wealth management practices
- Formulate big data storage and management
- Design, develop and manage projects utilising open source technologies and platforms
- Construct strategies integrating new technologies into wealth management practice

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
PARTICIPATION	10
GROUP BASED ASSIGNMENT	40
Sub-Total	50

Examinable Component	Weightage (%)
ECA	50
Sub-Total	50

Weightage Total **100**