

IS5010: INTRODUCTION TO FINANCIAL TECHNOLOGIES

Effective Term

Semester A 2025/26

Part I Course Overview

Course Title

Introduction to Financial Technologies

Subject Code

IS - Information Systems

Course Number

5010

Academic Unit

Information Systems (IS)

College/School

College of Business (CB)

Course Duration

One Semester

Credit Units

3

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course provides an overview of financial technologies (FinTech) in banking, financial markets, insurance, and regulations. Key topics include virtual and mobile banking, crowdfunding, payment platforms, open banking, Robo-advisory, high-frequency trading, RegTech, InsurTech, and blockchains. Students will examine the use of these technologies in facilitating core functions of financial services and assess the risks involved. In discussing various technologies, the course will cover related regulatory issues. Students will acquire skills to think critically about the economic and managerial implications in implementing financial technologies through real-world case studies. In examining disruptive financial technologies and understanding the challenges and opportunities for traditional financial services, this introductory course will pave way for students aiming for an IT-related career in the financial sector.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe and gain insight into FinTech compliance and regulations for different financial services in banks and other financial institutions.	40	x	x	
2	Reflect value of financial information systems and regulatory compliance to the effectiveness of management and the efficiency of transaction processing in financial services.	30	x	x	
3	Apply analytical skills to investigate and critically evaluate financial services innovations as a result of key enabling technologies from the perspectives of value proposition, alternative technologies, competition, risks and risk management, etc.	30	x	x	x

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Students will learn various financial technologies and compliance for financial services in banks and other financial institutions by using real-life examples, accompanied by in-class discussions and activities led by the lecturer.	1, 2, 3 Seminar: 3 Hours/Week (Lecture + Case Discussion)

2	Case Discussion	Students are required to discuss and analyze how information technologies could be applied and contributed to the efficiency of financial services industries through case analyses.	1, 2, 3	Seminar: 3 Hours/Week (Lecture + Case Discussion)
3	Peer Discussion	Students investigate an IT-enabled financial services innovation in groups applying analytical skills learned during the course.	1, 2, 3	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("- for nil entry)	Allow Use of GenAI?
1	In-Class Discussion Students are encouraged to discuss and reflect on the materials covered in lectures. Students are required to study read the assigned cases before class.	1, 2, 3	15	-	No
2	Individual Assignments Assignments will be given to assess students' understanding of the contents covered in the lectures.	1, 2, 3	15	case studies assignments	No
3	Group Project A group project, which includes a written report and an oral presentation, will be assigned to students to explore, investigate and critically evaluate a financial services innovation using the knowledge and analytical skills learned.	1, 2, 3	30	-	Yes

Continuous Assessment (%)

60

Examination (%)

40

Examination Duration (Hours)

2

Minimum Continuous Assessment Passing Requirement (%)

30

Minimum Examination Passing Requirement (%)

20

Additional Information for ATs

Final Examination

Students will be assessed via the examination on their understanding of concepts learned in class, textbooks, reading materials, and their ability to apply subject-related knowledge.

Remark: Students must pass BOTH coursework and examination in order to obtain an overall pass in this course.

Assessment Rubrics (AR)

Assessment Task

AT1: In-Class Discussion (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

CILO1 - 3

Demonstrate evidence of active learning through participating in the class discussion, asking critical questions and completing extra-credit activities.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT2: Individual Assignments (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

CILO1 - 3

Demonstrate a good understanding of content (technology, system, and business concepts) and analytical skills taught in the class through accomplishing individual assignments.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT3: Group Project (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

CILO1 - 3

- Demonstrate a good understanding of basic system concepts and the capability to synthesis the value of financial information systems and regulatory systems in enabling innovative financial services and create value interactions.
- Demonstrate capability to apply analytical skills to investigate and critically evaluate financial services innovations as a result of key enabling technologies from the perspectives of value proposition, alternative technologies, competition, risks and risk management, etc.
- Demonstrate great team working spirit and collaboration skills (peer evaluation and presentation).

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT4: Final Examination (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

CILO1 - 3

- Demonstrate a good understanding of content (technology, system, and business concepts) and analytical skills taught in the class through accomplishing individual assignments.
- Demonstrate good analytical skills in applying business analysis frameworks in answering questions.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT1: In-Class Discussion (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

CILO1 - 3

Demonstrate evidence of active learning through participating in the class discussion, asking critical questions, and completing extra-credit activities.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT2: Individual Assignments (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

CILO1 - 3

Demonstrate a good understanding of content (technology, system, and business concepts) and analytical skills taught in the class through accomplishing individual assignments.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT3: Group Project (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

CILO1 - 3

- Demonstrate a good understanding of basic system concepts and the capability to synthesis the value of financial information systems and regulatory systems in enabling innovative financial services and create value interactions.
- Demonstrate capability to apply analytical skills to investigate and critically evaluate financial services innovations as a result of key enabling technologies from the perspectives of value proposition, alternative technologies, competition, risks and risk management, etc.
- Demonstrate great team working spirit and collaboration skills (peer evaluation and presentation).

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

AT4: Final Examination (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

CILO1 - 3

- Demonstrate a good understanding of content (technology, system, and business concepts) and analytical skills taught in the class through accomplishing individual assignments.
- Demonstrate good analytical skills in applying business analysis frameworks in answering questions.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

Introduction

- Banking and investments
- Machine-Platform-Crowd
- Financial technologies

FinTech in Banking

- Virtual bank, mobile banking
- Crowdfunding
- Payment platform
- Open banking, Investment banking

FinTech in Trading

- Basic trading concepts
- Retail investor, robo-advisory, wealth management
- Institutional trading, high-frequency trading

Others

- RegTech
- InsurTech
- Blockchain, Cryptocurrency, Cybersecurity

Reading List**Compulsory Readings**

Title	
1	Cases specified in class

Additional Readings

Title	
1	Duran, R. E., Financial Service Technology: Processes, Architecture, and Solutions, 2nd Edition, Cengage Asia, 2017.
2	Arslanian, Henri, Fabrice Fischer. The Future of Finance: The Impact of FinTech, AI, and Crypto on Financial Services. Springer, 2019.
3	Barberis, J., Douglas, W. A., Buckley, R., The REGTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries in Regulation, John Wiley & Sons, 2019.
4	Madir, J., FinTech: Law and Regulation (Elgar Financial Law and Practice), Edward Elgar Pub., 2019.
5	Kim, K., Electronic and Algorithmic Trading Technology: The Complete Guide Academic Press, 2007.
6	King, B., Bank 4.0: Banking Everywhere, Never at a Bank, John Wiley & Sons, 2019.
7	Philippon, T., The FinTech opportunity. National Bureau of Economic Research, 2016.
8	McAfee, A., Brynjolfsson, E., Machine, platform, crowd: Harnessing our digital future. WW Norton & Company, 2017.