



Financial Technology and digital innovation to modernise and develop curricula of Vietnamese and Philippines Universities

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MASTER IN FINTECH AND DIGITAL INNOVATION - MODULE SYLLABUS -



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1. Module details

Module Title	MONEY, BANKING AND FINANCIAL INSTITUTIONS
Credits	3 units (Ph)
Hours	54 hours
N° of hours in presence	18 hours
N° of hours in distance learning	At least 36 hours
Name of the leading institution	Saint Louis University

2. Module description

This course explores the interaction between money, financial markets and institutions. It will examine the 1) roles of money – using crypto and digital currencies, 2) the fundamental principles of asset pricing, 3) how financial institutions help to overcome financial frictions, 4) how monetary and macroprudential policy manage inflation and can help to mitigate financial crises, (5) the international financial architecture, especially the role of the International Monetary Fund, and the impact of FinTech on the financial sector.

3. Learning Outcomes

The course overall learning outcomes are:

By taking this course, students will:

1. strengthen the understanding of the fundamentals of the banking, financial and monetary systems;
2. develop strategies on how financial institutions help to overcome financial frictions and manage financial crisis and bank runs;
3. strengthen the understanding on how monetary and macroprudential policy manage inflation and help mitigate financial crises;
4. strengthen the understanding of the financial architecture and the role of International Monetary Fund and other international financial institutions; and

5. critically identify the impact of Fintech on the financial sector.

4. Module knowledge, skills and competencies (EQF*)

Moreover, at the end of this course, the student will be able to

(*<https://europa.eu/europass/en/european-qualifications-framework-eqf>) :

Knowledge and Understanding:

- Demonstrate in-depth understanding of core concepts of banking and financial institutions
- Demonstrate a critical understanding of money, banking and financial institutions model
- Demonstrate a critical understanding of the range of digital solutions in monetary systems
- Demonstrate a critical awareness of current, emerging and future issues for FinTech

Application and Problem-Solving Abilities:

- Apply a significant range of financial models and other FinTech relevant skills;
- Apply an integrated understanding of entrepreneurial dynamics, project and innovation management in the context of technology-based finance and banking
- Plan and execute significant research and development projects of financial technology;

5. Module lessons

Lesson N.	1
Lesson title	Roles of money – using crypto and digital currencies
Duration	3 contact hours 6 hours distance learning
Specific objectives	Upon completion of the lesson: <ol style="list-style-type: none"> the student will be to explain and understand the difference between money, credit and crypto the students will be able to understand and apply the principles of interest, risks and bond market evaluation.

Topics	<ul style="list-style-type: none"> • Money, Credit and Crypto <ul style="list-style-type: none"> ○ Double coincidence of wants, Gresham's Law ○ Token vs. account-based money ○ "The Digitalization of Money" ○ Cryptocurrencies • Interest Rates, Risks and Bond Market Evaluations <ul style="list-style-type: none"> ○ Relative asset pricing, arbitrage ○ Yield curve, Forward rates, term structure, expectation hypothesis, ... ○ Interest rate risk, default risk, variance risk and options, correlation risk and CDOs, CDS
In presence activity	-lecture video presentation, individual problem solving activities, interactive discussion
Distance learning type of learning object /task	<ul style="list-style-type: none"> • Audio/Video Lesson • Lecture note • Self-evaluation test
Other supporting material	

Lesson N.	2
Lesson title	The fundamental principles of asset pricing
Duration	3 contact hours 6 hours distance learning
Specific objectives	Upon completion of the lesson, the student will be able to <ol style="list-style-type: none"> 1. Define the describe risk free rate, risk premia and the macroeconomy 2. Apply the principles in solving problems
Topics	<ul style="list-style-type: none"> • Risk-free Rate, Risk Premia, and the Macroeconomy <ul style="list-style-type: none"> ○ Absolute asset pricing, stochastic discount factor ○ Leverage and capital structure

In presence activity	Theoretical video lecture, individual problem solving, interactive discussion
Distance learning type of learning object /task	<ul style="list-style-type: none"> • Audio/Video Lesson • Lecture note • Self-evaluation test
Other supporting material	

Lesson N.	3
Lesson title	Financial Institutions and Financial Frictions
Duration	3 contact hours
Specific objectives	<p>Upon completion of the lesson, the student will be able to:</p> <ol style="list-style-type: none"> 1. Describe bubbles and the efficient market hypothesis 2. Explain Financial Frictions and Inefficiencies
Topics	<ul style="list-style-type: none"> • Bubbles and the Efficient Market Hypothesis <ul style="list-style-type: none"> ○ Gordon Growth Model, Efficient Market Hypothesis ○ Bubbles • Financial Frictions and Inefficiencies <ul style="list-style-type: none"> ○ Adverse selection, moral hazard, debt overhang, commitment problems, solvency vs. liquidity, ○ - Mitigation via collateral, securitization, intermediaries, ...
In presence activity	Class lecture (f2F)
Distance learning type of learning object /task	<ul style="list-style-type: none"> • Lecture note • Self-evaluation test
Other supporting material	

Lesson N.	4
Lesson title	Monetary and macroprudential policy management and Financial Crises
Duration	6 contact hours

	12 hours distance learning
Specific objectives	<p>Upon completion of the lesson, the students will be able to:</p> <ol style="list-style-type: none"> 1. Describe the principles of intermediation 2. Differentiate concepts on financial crises, systemic risk and financial regulation 3. Explain monetary and macroprudential policy
Topics	<ul style="list-style-type: none"> • Intermediation <ul style="list-style-type: none"> ○ Trust and reputation ○ Role of banks ○ Traditional vs. Modern Banking and Shadow Banking ○ Securitization ○ FinTech • Financial Crises, Systemic Risk, Financial Regulation <ul style="list-style-type: none"> ○ Amplification, multiple equilibria, liquidity spiral, endogenous risk, volatility paradox ○ Liquidity vs. Solvency ○ Bank Runs ○ Systemic Risk Measures and Financial Regulation ○ Great Recession ○ Euro crisis • Monetary and Macroprudential Policy <ul style="list-style-type: none"> ○ Mandates and goals of monetary policy, inflation targeting, Taylor rules ○ Time inconsistency and reputation ○ Accounting basics (Central banks, banks, and households' balance sheets) Boehm 146 ○ Transmission mechanism, time-inconsistency problem ○ Central banks and bubbles ○ Risky government debt, diabolic loop, stability and dominance concepts
In presence activity	Classroom Lecture F2F (6 hour, individual problem solving activities)
Distance learning type of learning object /task	<ul style="list-style-type: none"> • Audio/Video Lesson • Virtual classroom/ web-streaming

	conference <ul style="list-style-type: none"> • Lecture note • Self-evaluation test
Other supporting material	

Lesson N.	5
Lesson title	The international financial architecture
Duration	3 contact hours 6 hours distance learning
Specific objectives	Upon completion of the lesson, the students will be able to: <ol style="list-style-type: none"> 1. Elaborate the concepts and the role of International Financial Architecture 2. Describe Digitization of Money
Topics	<ul style="list-style-type: none"> • International Financial Architecture <ul style="list-style-type: none"> ○ Mundell Fleming Trilemma, pegs, dollarization, ○ Role of the IMF • Digitization of Money <ul style="list-style-type: none"> ○ Digital Currency Areas ○ Digital dollarization ○ The Digitization of Money
In presence activity	F2F class Lecture, group discussion of application
Distance learning type of learning object /task	<ul style="list-style-type: none"> • Video Lesson • Virtual classroomm • Lecture note • Self-evaluation test
Other supporting material	