Solvay Brussels School
Economics & Management

AMFM-2526-520 Next-Gen Finance

Name of lecturer(s) & Email	Level/Semester, Status, Timing	ECTS*, CH & SDL**
Patrice Latinne : patrice.latinne@be.ey.com Bernard Nicolay : bernard.nicolay@ulb.be	Semester 2 (term 4) Compulsory Between 19/03/2026 to 28/04/2026 + exam	3 24 66

Description of the course

- The course covers Next-Gen Finance. It focuses on Fintech, Blockchain and Artificial Intelligence use cases in financial markets and services. It is led by Patrice Latinne and Bernard Nicolay.
- The course consists of 8 sessions of 3 hours each. It combines academic masterclasses, case discussions, guest practitioner keynotes, one individual essay and one group capstone project.

Course units

Session 1 of 19/3 – Masterclass Introduction to AI in Financial Markets (P. Latinne)
- What is and what is not AI in financial markets today based on real-life examples in front, middle, and back-office operations. Introduction to the capstone projects (5-6 relevant topics, 1 per group, 3 students per group. From the lens of 3 typical roles, how will you solve the proposed business challenge using AI?)

Session 2 of 24/3 – Masterclasses: "Introduction to Fintech" and "Blockchain, Sustainability and Finance" (B. Nicolay)
- Definition of Fintech, mapping of business models using the Business Model Canvas and overview of raised funding
- "Blockchain, Sustainability and Finance" Masterclass, including payment, investing and lending use cases, introduction to decentralized finance (DeFi), and ESG issues

Session 3 of 26/3 –Keynote on AI in Financial Markets (P. Latinne with guest practitioner)
- Strategy and Delivery of modern AI systems at scale at a European financial market leader
- Q&A on the capstone projects: from an idea to an AI project

Session 4 of 31/3 – Case Studies: Bitcoin in asset allocation, mining and climate change (B. Nicolay)
- Case 1: "Bitcoin: Keep "hodling"?", Darden Business Publishing 2026
- Case 2: "Royal Bank of Canada: Bitcoin mining and climate change", Ivey Publishing 2024

Session 5 of 2/4 – Case studies in AI applied to Financial Markets (P. Latinne)
- investment portfolio management (with 5 sub-domains of application, leveraging quantitative models up to agentic AI)
- Q&A on the capstone projects: focus on risks, business case and ROI

Session 6 of 7/4 – Capstone Projects: Presentations and roundtable (P. Latinne)
- Student group presentations on their capstone projects, all groups participate so that everyone discovers 5-6 other relevant applications
- Feedback and Q&A from the instructor
- Roundtable in the classroom about each capstone project

Session 7 of 16/4 –Keynote: "Digital Assets and Banking" (B. Nicolay, with guest practitioner from banking leading player)
- Tokenization, crypto assets, and integration in banking services
- Opportunities and regulatory considerations

Session 8 of 28/4 – Keynote: "The Future of Payments" (B. Nicolay, with guest practitioner from payment and card leading player)
- Embedded finance, open banking, CBDCs and instant payment systems
- Strategic responses of incumbents and fintechs

Course Learning Outcomes (CLOs)

Conceptual and Analytical Understanding
- CLO 1: Explain the foundations and boundaries of artificial intelligence in financial markets. Students will be able to distinguish what AI "is" and "is not" in front-, middle-, and back-office operations, using real-world examples from banking, asset management, and financial infrastructure.
- CLO 2: Analyse the fintech ecosystem, its business models, and technological building blocks. Students will be able to map fintech business models using the Business Model Canvas, interpret major funding trends, and evaluate the strategic positioning of fintech vs. incumbent players.
- CLO 3: Describe blockchain technologies, digital asset markets, and the sustainability implications of crypto activities. Students will understand payments, investing, and lending use cases; basics of decentralized finance; tokenization; and environmental/social governance (ESG) considerations, including Bitcoin's energy footprint.

Application and Critical Evaluation
- CLO 4: Critically evaluate the strategic deployment of AI at scale within financial institutions. Students will analyze how market leaders design, integrate, and operationalize AI systems, and articulate the challenges in going from idea to delivered AI use case.
- CLO 5: Assess case studies involving AI and digital assets to draw managerial insights. Students will examine cases such as Bitcoin in asset allocation, mining & climate change, and AI-based portfolio management, identifying risks, opportunities, ROI, and business implications.

Practical Problem Solving and AI Project Design
- CLO 6: Formulate an AI-driven solution to a real financial market challenge. As part of the capstone project, students will propose a complete AI use case from the perspective of three typical financial roles (business owner, data scientist, risk/compliance), including problem framing, data needs, model approach, risk assessment, and expected business value.
- CLO 7: Communicate and defend AI-enabled financial strategies in a professional setting. Students will present, justify, and debate their capstone project designs and receive and integrate feedback from peers and instructors.

Regulatory, Strategic and Technological Foresight

*__ECTS__ - European Credit Transfer and Accumulation System (1 ECTS = 30 hours of learning)
**__CH__ - Contact Hours in class or online, __SDL__ - Self-Directed Learning including readings, homework, group work, preparation to assessment, etc
***__PLO__ - Programme Learning Objectives are available on the curriculum page

- CLO 8: Evaluate the impact of digital assets on banking services and financial regulation. Students will explain how crypto assets and tokenization models integrate into banking, and assess the associated regulatory, operational, and strategic considerations.
- CLO 9 — Analyse the future of payments and its implications for financial institutions. Students will understand key trends, such as embedded finance, open banking, central bank digital currencies (CBDCs), and instant payment systems, and evaluate how incumbents and fintechs respond strategically.

Prerequisite (if any)
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Contribution to Programme Learning Objectives (PLOs)***
- Learning Objective 1.1: Mastery
- Learning Objective 2.1: Mastery
- Learning Objective 3.1: Mastery
- Learning Objective 4.1.: Mastery
- Learning Objective 5.1: Mastery

Evaluation scale
0-20

Main Teaching methods used in the course
- This course combines academic masterclasses, case discussions, guest practitioner keynotes, one individual essay and one group capstone project.

Contribution to the Environmental, social and governance (ESG)
Course Contribution to ESG: The course includes discussing to what extent next-gen finance involves opportunities and attention points relating to environmental, social and governance issues.
Contact Hours are dedicated to ESG: 6
Contact Hours containing climate solutions for how organizations can reach net zero: 0
Description of contribution: Discussion to what extent next-gen finance involves opportunities and attention points relating to environment, social and governance issues. ESG is integrated as a guiding thread in the analysis of financial innovations. It is used to assess the environmental (e.g., decarbonization), social, and governance impacts of new technologies. It is also addressed from the perspective of compliance, risk, and reputation for financial institutions. Finally, ESG is presented as a key factor in making financial models sustainable and "future-proof".

Notice: The information available in the course outline is subject to change. Please keep yourself informed at all times by regularly checking Canvas.

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Assessment methodology / Learners Use of Time and Load

- Graded deliverables
  - Written Exam: 40%
  - Individual Essay: 20%
  - Capstone Project: 40%
- Workload estimated = 66 hours

Readings

Required
/
Recommended
/

Other Learning Materials
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