CS - Financial Technology Graduate Program

FinTech Graduate Program
Director: Kenny Hunt
213 Wing Technology Center; 608-785-6822

www.uwlax.edu/academics/department/computer-science-and-computer-engineering/ (https://www.uwlax.edu/academics/department/computer-science-and-computer-engineering/)

A collaborative program

The certificates in the Financial Technology (FinTech) Graduate Program are flexible online programs offered jointly by UW-Parkside and UW-La Crosse with administrative assistance from UW-Extended Campus. Each certificate consists of three courses for a total of nine credits.

Financial technology

Financial technology (FinTech) is a discipline that applies computing systems and computing strategies to the financial services industry. Some of the most active areas of FinTech innovation include: cryptocurrency (Bitcoin, ethereum, and others) and related areas such as distributed ledgers (i.e. blockchain), digital tokens (i.e. NFTs), digital wallets, and smart contracts; mobile banking; contactless payment systems (i.e. Google Pay, Apple Pay); cybersecurity; robotic process automation; roboadvisors; and automated regulatory compliance algorithms. Both the Emerging Technologies in FinTech Certificate and the Leading FinTech Transformation Certificate provide students the technical competencies required to advance their professional career within the FinTech industry.

Program length

The graduate certificates in the Financial Technology Program are typically one-year programs. The program length is based on how long the required UWL coursework would take to complete for a part-time student, taking one course per term. Program length may be shortened if students take more than one course in a term.

Certificates

- Emerging technologies in fintech - certificate program (http://catalog.uwlax.edu/graduate/programrequirements/financialtechnology/emerging-technologies-fintech-certificate/)
- Leading fintech transformation - certificate program (http://catalog.uwlax.edu/graduate/programrequirements/financialtechnology/leading-fintech-transformation-certificate/)

Courses

FNT 700 Cr.3
FinTech Essentials
This course covers the FinTech ecosystem and its technology-assisted processes including core banking systems, Automated Clearing House (ACH) processing, payment systems, Interactive Teller Machines (ITMs), money movement apps, Billpay systems, and credit card networks. Students analyze financial statements, capital budgeting techniques, and liquidity metrics, and perform cash flow, profitability, valuation analysis. Prerequisite: admission to graduate FinTech Program. Offered Annually.

FNT 705 Cr.3
FinTech Analytics
This course covers financial data technologies, financial data visualization, and developing financial analytics applications using current analytics software tools. Prerequisite: admission to graduate FinTech Program. Offered Annually.

FNT 710 Cr.3
Managing FinTech Innovation
Develop competencies required to cultivate an innovative organizational culture in the financial services industry. Learn how to develop, evaluate, and manage a strategic technology plan. Explore FinTech project management topics, life cycle models, development processes, business analysis, risk analysis, vendor selection and cybersecurity. Prerequisite: admission to graduate FinTech Program. Offered Annually.

FNT 730 Cr.3
Technologies in FinTech
Students will learn how cloud computing, artificial intelligence, machine learning and other technologies are used in a financial services context. Additional topics such as API design, robotic process automation, risk analysis, and cybersecurity will also be discussed. Prerequisite: admission to graduate FinTech Program. Offered Annually.

FNT 735 Cr.3
Blockchain Technologies
This course covers blockchain technologies such as those used in Bitcoin and Ethereum, cryptocurrencies vs blockchain, smart contracts, Decentralized Applications (dApps), Decentralized Finance (DeFi) applications, cryptocurrency wallets, blockchain test networks and transactions, regulatory landscape, cryptocurrency trading, and implications for accounting. Prerequisite: admission to graduate FinTech Program. Offered Annually.

FNT 740 Cr.3
Artificial Intelligence and Machine Learning in FinTech
Students will learn artificial intelligence and machine learning strategies and how they can be used to build more efficient financial services. AI/ML techniques include decision trees, kNN, Random Forests, SVM for applications such as credit evaluation, fraud detection, loan underwriting, algorithmic trading, and chatbots. Prerequisite: admission to graduate FinTech Program. Offered Annually.