

FINTECH, MS

The Master of Science in FinTech (MS FinTech) at the University of Colorado Denver is a cutting-edge program designed to equip students with the skills and knowledge needed to thrive in the rapidly evolving financial technology sector. Combining state-of-the-art research with hands-on experience, this program prepares graduates to navigate and innovate within the modern financial landscape.

The curriculum is structured around four core pillars, each offering a specialized digital badge to enhance expertise in key areas of FinTech:

- **Crypto & Blockchain** – Explore decentralized finance (DeFi), smart contracts, and blockchain-based innovations that are transforming financial markets.
- **AI & Machine Learning** – Learn how artificial intelligence and machine learning are revolutionizing trading strategies, risk management, and financial decision-making.
- **Business Analytics** – Gain proficiency in data-driven financial decision-making by leveraging big data analytics, predictive modeling, and algorithmic insights.
- **Computational FinTech** – Develop technical expertise in quantitative finance, computational algorithms, and financial modeling to solve complex financial challenges.

In addition to these core pillars, students have the opportunity to earn a FinTech Analyst Certificate (<http://catalog.ucdenver.edu/cu-denver/graduate/schools-colleges-departments/business-school/fintech-analyst-certificate/>), further solidifying their ability to analyze and apply financial technology innovations across various sectors.

Designed for professionals looking to stay ahead in a technology-driven industry, the MS in FinTech offers a unique blend of theoretical foundations, applied learning, and industry collaboration. Graduates will be well-positioned for roles in fintech startups, investment firms, financial institutions, and technology-driven enterprises.

Prerequisites

Prerequisites: BUSN 6550 Analyzing and Interpreting Accounting Information or the equivalent of a financial accounting course taken within the last ten years with a "B-" grade or higher. Students are also expected to be knowledgeable in spreadsheet software.

Program Requirements

FinTech Analyst Certificate

The FinTech Analyst Certificate provides a comprehensive introduction to key financial and technology principles. Through four classes, students will explore fundamental concepts such as financial markets, investment strategies, corporate finance, and risk management. Ideal for beginners aiming to build a solid foundation in finance.

| Code | Title | Hours |
|------------------------------|--------------------------------|-------|
| Required Courses: | | |
| BUSN 6620 | Applied Economics for Managers | 3 |
| BUSN 6640 | Financial Management | 3 |
| Select two of the following: | | 6 |
| ENTP 6110 | Innovation in Fintech | |
| FNCE 6480 | Financial Modeling | |

FNCE 6880 Critical Software for FinTech

Total Hours 12

Crypto & Blockchain in FinTech

The focus in Crypto and Blockchain in FinTech offers comprehensive knowledge and skills in cryptocurrency and blockchain technology applications within financial services. Designed for professionals and students, this program provides practical insights and hands-on experience in leveraging blockchain for innovative FinTech solutions. Elevate your career with expertise in the latest advancements in digital finance.

| Code | Title | Hours |
|--------------------------|---------------------------------------------------|----------|
| <i>Required Courses:</i> | | |
| FNCE 6850 | Blockchain, Crypto Investing and Trading Strategy | 3 |
| FNCE 6860 | Payments and Digital Banking | 3 |
| Total Hours | | 6 |

Business Analytics in FinTech

The focus in Business Analytics in FinTech equips professionals and students with advanced skills in data analysis and decision-making within financial technology. This program offers practical insights and hands-on experience in leveraging business analytics for innovative FinTech solutions. Enhance your career with expertise in the intersection of data science and finance.

| Code | Title | Hours |
|---------------------------|--------------------------------------------------------------------------|----------|
| <i>Required Courses:</i> | | |
| FNCE 6750/ ISMG 6820 | Business Intelligence for Financial Modeling | 3 |
| BANA 6620 or ISMG 6020 | Computing for Business Analytics Programming Fundamentals with Python | 3 |
| Total Hours | | 6 |

Artificial Intelligence (AI) & Machine Learning (ML) in FinTech

The focus in AI & ML in FinTech provides cutting-edge knowledge and skills in artificial intelligence and machine learning applications specific to financial technology. Designed for professionals and students, this program offers practical insights and hands-on experience in leveraging AI and ML for innovative solutions in the finance industry. Enhance your career with expertise in the latest FinTech advancements.

| Code | Title | Hours |
|--------------------------|--------------------------------------|----------|
| <i>Required Courses:</i> | | |
| FNCE 6870 | Introduction to AI and ML in FinTech | 3 |
| BANA 6780 | AI for Business | 3 |
| Total Hours | | 6 |