

# FTA - FINANCIAL TECHNOLOGY

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## **FTA 4001 Foundations of FinTech (3-0-3)**

This course provides students with an overview of FinTech and its applications in financial services.

### **Restriction(s):**

Enrollment limited to Junior or Senior students.

## **FTA 4002 FinTech Technologies (3-0-3)**

This course surveys the tools and architecture of financial services technologies with a focus on emerging applications in the rapidly changing landscape of FinTech including IVR, APIs, ISO, XML structures, POS, cybersecurity, and distributed ledger technologies.

### **Restriction(s):**

Enrollment limited to Junior or Senior students.

## **FTA 4003 Commercial Banking and Fintech (3-0-3)**

In this course, students will learn about the principles and practices of commercial bank management, bank regulation, and the tradeoffs between risk and return. Challenges presented by the FinTech revolution, including traditional and emergent competitors as well as demographic, social, and technology forces driving change in the industry, will be integrated throughout the entire course.

## **FTA 4004 COBOL Programming (3-0-3)**

This course introduces the COBOL programming language. The course will cover topics including COBOL syntax and commands, tables, and file processing – including sequential, indexed, and relative files.

## **FTA 4005 Introduction to Financial Data Analytics (3-0-3)**

This course provides the foundation for financial data analytics used in business and FinTech applications. The objective of this course is for students to gain experience in analyzing financial data using modern machine learning techniques, statistical methods, and prediction models. Students will develop computational skills to perform data analysis using a modern statistical programming environment, and apply these skills to address a range of problems encountered by business firms, including those in the FinTech industry. The topics discussed include an introduction to R language, visualization of financial data, cluster analysis, simple and multiple linear regression, classification models, high dimension data analysis using Lasso, and model assessment and selection using cross validation. Students will have hands-on experience in the development of data analytics applications to analyze real-world financial problems.

## **FTA 4100 Introduction to Information Security for FinTech (3-0-3)**

The purpose of this course is to introduce the student to the rapidly evolving and critical international arenas of Privacy, Information Security, and Critical Infrastructure for FinTech. This course is designed to develop knowledge and skills for security of information and information systems within FinTech organizations. It focuses on concepts and methods associated with security across several systems platforms, including internal and Internet-facing systems. The course utilizes a world view to examine critical infrastructure concepts as well as techniques for assessing risk associated with accidental and intentional breaches of security in a FinTech network. It introduces the associated issues of ethical uses of information and of privacy considerations.

## **FTA 4698 Fintech Internship (0-0-(1-3))**

Placement is restricted. Substantial written proposal and final report are required. Nine hours work per week is required. Credit may be applied only as an elective. (S/U grading.)

### **Restriction(s):**

Enrollment limited to students in the Department Prerequisite college.