



KENNESAW STATE
UNIVERSITY

FTA 4002– FINANCIAL TECHNOLOGIES

Meeting Times/Location

Online

Contact Information

Name: Jonathan Godbey

Preferred Method of Contact: D2L Email

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Phone: 404.413.7328

Office Location: J-391

Email: Please feel free to reach out to me at any time. You can expect a response within 24 hours during business hours.

Office Hours: TBD.

Email and Classroom Response Time:

Please contact me using **D2L Email** for all course related questions. I will check my D2L Email at least once a day, not including weekends or holidays. During the week, I generally respond to emails within 24 hours. Over the weekend (starting Friday at 4 p.m.) I will respond to emails the next following business day.

Description

This course examines the information and communications tools, technologies, and standards integral to consumer, merchant, and enterprise services in the payments and financial service sectors. Explores technology's role in reshaping FinTech businesses. Technologies span messaging, communication networks and gateways, core processing, mobile and online software, and application program interfaces (APIs). Includes the challenges, standards, and techniques associated with securing systems and data.

Credit Hours: 3

Prerequisites: None

Objectives

Students who complete this course successfully will be able to:

1. Explain the business context for technology solutions in FinTech industries
2. Understand common information and communication technologies used in FinTech organizations
3. Identify sources of financial and cybersecurity risk in the context of financial services
4. Understand how information and communication technologies are driving innovation in FinTech industry
5. Understand the impact of FinTech on traditional banking and developments in payments, digital banking, alternative lending, and P2P technologies;
6. Understand crowdfunding and its impact on investment banking and entrepreneurial financing

7. Engage in the process of FinTech innovation.

Materials/Textbooks

Textbook

- ***Fintech in a Flash*, Augustin Rubini**, 1 edition (April 14, 2017), ©2017, ISBN: 978-1545165539.

Course Website

iCollege : <https://gastate.view.usg.edu/d2l/home/>

- It's important to know how to use this learning management system for: following learning modules, submitting assignments, checking grades and feedback, downloading files, participating discussion boards, etc.
- Please check the course site regularly for important announcements and other issues.

Required Software/Hardware

- Code editor:
 - Visual Studio Code <https://code.visualstudio.com> (Recommended), or
 - Notepad++: <http://notepad-plus-plus.org/>
- Other software:
 - Software that can open and/or edit Word, PowerPoint, Excel, PDF, and ZIP files.

Evaluation

Weighted by Percentage:

Category	Weight
Class Attendance & Participation	30%
Midterm	20%
Team Case Study Report and Presentation	30%
Final Exam	20%
Total	100%

Grade Conversion

A: (90-100), B: (80-89), C: (70-79), D: (60-69), F: (0-59)

*** Detailed grading criteria are available in D2L for how Discussions and Projects will be graded. ***

Examinations (2):

A Mid-Term & Final examination will primarily focus on the course materials and discussions from the assigned readings and class lectures and will be composed of T/F, MC, and short answer questions. No make-up exams will be offered except in the case of absence excused due to illness or a family crisis.

Class Participation:

This is not self paced, students are expected to participate in discussions. Students should be prepared for every class and that includes making sure that they have studied the assigned material in advance. Since this is a lecture/discussion-oriented course, regular attendance and participation is required. Simply showing up for class, important as it may be, is not to be equated with participation. Students should make an effort to contribute to each and every class discussion and online with responses to other students' postings. Students should expect to be "cold called" throughout the course and should be prepared for every class. Any student can be asked to present a summary of the reading and his ideas / views on the reading with justification. In evaluating your class participation in discussions, both the quantity and quality of participation is taken into account. The quality of your contributions to discussions will be evaluated using the following criteria: If "cold called," was the student prepared?

Does the contribution in class or online represent a solid analysis and some insight into the topic being discussed or is it just a reiteration of facts? Does the contribution move the discussion to an important area or does it just rephrase what has already been said? Does the contribution demonstrate useful ideas, coherently and succinctly expressed?

Does the contribution in class or online demonstrate an ability to listen to and build from what others have said? Does the contributor regard, respect and acknowledge other's contributions? If the contributor disagrees with other's positions or analysis does s/he offer constructive disagreement? Is the student lacking in involvement (silence, detachment or disinterest) or leading our discussion into unrelated topics? Is the student spending undue amount of time on minor points? Is the student making long rambling comments without any substantive contribution to the discussion?

Class "Case Study" Report

The growth of the buzz around fintech sets the stage for a survey of the fintech landscape, as well as an analysis of options that financial institutions are presented with today. The case examines the scope, history, and scale of the fintech industry, while also defining what fintech may be...and what it is not. The Team project is designed to take a complex, real-world, situation for a company/organization and your consulting company is asked to analyze their situation and make a recommendation for a path forward. A template will be provided and your final "team report" will be graded using the following rubric:

Criteria	Meets	Mostly Meets	Partially Meets	Failed to Meet	Score
Report Organization	20	15	10	0	
Research	20	10	10	0	
Analysis	30	25	15	0	
Content	30	25	15	0	
Totals					/100

Class "Case Study" Presentation

Each team prepares no more than 5 PowerPoint slides to present:

1. An executive summary of the Case Study.
2. Solution Selected and Why.
3. Ask class questions and try to facilitate discussion and knowledge transfer
4. Demonstrate proficiency with preparing and presenting assigned reading topics

The team should identify and discuss the Fintech Concepts presented. Also, if possible, your presentation should reference other relevant reading assignments for that class session or other class sessions.

You will be given a maximum 15 minutes for presentation and 5 minutes for Q&A.

Upload presentation to the iCollege *Team Presentations folder* no later than 3:00 pm on the day of the presentation.

Presentation Grading Rubric:

Criteria	Meets	Mostly Meets	Partially Meets	Failed to Meet	Score
Executive Summary	25	15	10	0	
Solutions Offered	25	15	10	0	
Class Engagement	25	15	10	0	
Presentation Execution	25	15	10	0	
Total					/100

Course Outline

Below is an outline of the course content. Please refer to the D2L calendar for the due dates of assignments.

Week	Module	Reading/Work due
1	<ul style="list-style-type: none"> • Introduction to FinTech • Traditional vs. Online Banking 	<ul style="list-style-type: none"> • Rubini, Chapter 1, 2 & 5 • The Decline of Traditional Banking
2	<ul style="list-style-type: none"> • B2B, B2P, & P2P Lending • Secure Payments 	<ul style="list-style-type: none"> • Rubini, Chapter 3 & 4 • Fundamentals of Payment Systems • B2P & P2P Lending (pages 1-28 only) • Micro payments
3	<ul style="list-style-type: none"> • Electronic fund transfer • Digital Check Concept 	<ul style="list-style-type: none"> • Mobile & Money Payments Trends • Digital Checks
4	<ul style="list-style-type: none"> • Smart Card Standards • Security of Mobile-Agent-Based Systems • Security Protecting Mobile Agents 	<ul style="list-style-type: none"> • Smart Card & Security Basics • Smart Card Protocols
5	<ul style="list-style-type: none"> • Mobile Technologies • Wireless Communications Infrastructure. 	<ul style="list-style-type: none"> • Mobile Communication History • Mobile Technologies

	<ul style="list-style-type: none"> Wireless Computing Infrastructure 	<ul style="list-style-type: none"> Wireless Internet Network Communications
6	<ul style="list-style-type: none"> Voice Applications E Commerce 	<ul style="list-style-type: none"> Rubini, Chapter 6 The Rise of Voice Commerce Enterprise Voice Technology Solutions Voice Commerce Technologies The Future of E Commerce
7	<ul style="list-style-type: none"> Digital Signatures Cryptographic Hash Functions Biometrics for Security 	<ul style="list-style-type: none"> Biometrics in Security Biometrics in Security 2 PKI Fundamentals EMV Encrypt Tokenization
8	<ul style="list-style-type: none"> The types of APIs Various business models for APIs 	<ul style="list-style-type: none"> Application Programming Interface API Management Electronic Checks API
9	<ul style="list-style-type: none"> Predictive Analytics Wealth Management Crowdfunding & Crowd investing 	<ul style="list-style-type: none"> Rubini, Chapter 7 & 8 Retail Banking 2020 Evolution or Revolution Banking Challenges 2020 Digital Transformation in Banking
10	<ul style="list-style-type: none"> Big Data IoT AI. 	<ul style="list-style-type: none"> Rubini, Chapter 9 & 10 Internet of Things Tutorial Fintech and Big Data
11	<ul style="list-style-type: none"> Blockchain characteristics, advantages, disadvantages Block chain header and transaction blocks Mining, proof of work, proof of stake Hyperledger Distributed anonymous authority (DAO) ICOs (initial coin offerings) Blockchain as a Service (BaaS) 	<ul style="list-style-type: none"> Rubini, Chapter 11 Blockchain and Modern Banking Blockchain as a Service Introduction to Hyperledger Bitcoin
12	<ul style="list-style-type: none"> Digital watch & digital wallet technologies Digital Wallet technologies in cryptocurrency Security Requirements for Digital Cash. Brands' Digital-Cash Scheme One-Response Digital Cash Fair Digital Cash 	Mobile Digital Wallets
13	<ul style="list-style-type: none"> What is RegTech & Insurtech Why are they Important? What are their challenges? 	<ul style="list-style-type: none"> Rubini, Chapter 12 Everything You Need to Know about Regtech The Complex Regulatory Landscape for FinTech
14	<ul style="list-style-type: none"> PCI DSS (Payment card industry data security standard) PIN transaction security (PTS) requirements Personal identification number (PIN) Personal identification number (PIN) Digital identities Identity-based encryption Data security standard 	<ul style="list-style-type: none"> Rubini, Chapter 13 Pin Transaction Security SSL Protocols Data Security Standards

	• Data encryption standard	
15	Project presentations & Final Exam	Team Case Study Report

Course Policies

Announcement

Important announcements will be made to the class electronically through the D2L Announcements tool. It is important that you check your D2L account regularly for announcements, assignments, and course updates.

Assignments, Quizzes, & Exams Policy

- All assignments **MUST** be submitted through D2L by the deadline. Email submissions are **NOT** accepted. Any assignment that is less than 24 hours late is subject to 10% penalty. Any assignment that is more than 24 hours late will **NOT** be accepted.
- All quizzes and/or exams **MUST** be completed on D2L website by the deadline. The quizzes and/or exams can't be opened/submitted after the deadline.
- If you must miss an exam due to illness, you must e-mail or call the instructor before the scheduled time. Failure to notify the instructor prior the scheduled time will produce an automatic zero for the exam. NO makeup test except for emergencies with proof (e.g. doctor's slip).

Discussions

People learn through interactions, to facilitate interactive learning this course will use the Discussions feature in D2L. Discussions will take place in an **asynchronous** manner.

Grading

Grades will be posted in D2L, generally within one week from the due date or submission date whichever is later. Significant assignments such as projects may take longer to grade. If you think there is an error, please make a re-grading request by e-mail within one week of grade posting. A request for reassessment will not be granted if more than two weeks have passed since the grade in question was posted. Please check your grades in D2L regularly.

No "extra credit" work will be given to improve one's grade. Copies of your class work and test will be kept for record.

Assignment Submission Guidelines

All work turned in for this class must meet the submission guidelines presented in the Start Here module. Work that does not meet the submission criteria will not be graded. Scoring rubric will be provided for each assignment.

Attendance

Attendance in classes, laboratories and lectures is important. All students are expected to attend these activities in accordance with their schedule of courses. The instructor determines the attendance policy for each course. All instructors will provide the students, at the beginning of each semester, a clear statement regarding their policies in handling absences. Instructors will also be responsible for advising their students regarding the academic consequences of absences. To view the complete student attendance policy, please visit <http://catalog.kennesaw.edu/content.php?catoid=38&navoid=3019#attendancepolicy>.

Enrollment Status Statement - Students are solely responsible for managing their enrollment status in a course; nonattendance does not constitute a withdrawal.

Institutional Policies

Federal, BOR, & KSU Course Syllabus Policies

Information contained in the links below constitutes the Federal, BOR, and KSU course syllabus policies and procedures. These policies are updated on the Academic Affairs Website annually.

Academic Affairs - Federal, BOR, & KSU Policies

([http://curriculum.kennesaw.edu/resources/federal bor ksu student policies.php](http://curriculum.kennesaw.edu/resources/federal_bor_ksu_student_policies.php))

Academic Affairs - KSU Student Resources

([http://curriculum.kennesaw.edu/resources/ksu student resources for course syllabus.php](http://curriculum.kennesaw.edu/resources/ksu_student_resources_for_course_syllabus.php))

Academic Integrity Statement

Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section 5c of the Student Code of Conduct addresses the university's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to university materials, misrepresentation/falsification of university records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement. See also KSU Student Code of Conduct (<https://web.kennesaw.edu/scai/content/ksu-student-code-conduct>).

Confidentiality and Privacy Statement (FERPA)

Kennesaw State University adheres to the Family Educational Rights & Privacy Act of 1974 – FERPA. See the following link for more information:

<http://www.usg.edu/information-technology-handbook/section9/tech/9.5-privacy-and-security>

University – Student Rights & Responsibilities

Students of Kennesaw State University are entitled to an environment that is conducive to learning and individual growth. To this end, students enrolling at Kennesaw State University assume a responsibility to abide by the policies and regulations expressed in this section. By doing so, students may fulfill their responsibilities and enjoy the exercise of their own rights while also respecting the rights of others.

See <http://catalog.kennesaw.edu/content.php?catoid=27&navoid=2263>

Ethics Statement

All students are responsible for knowing the information, policies and procedures outlined in the Kennesaw State University Codes of Conduct. The KSU Codes of Conduct include: the general Student Code of Conduct, the Residential Code of Conduct, and the Code of Academic Integrity. Kennesaw State University reserves the right to make changes to this code as necessary and once those changes are posted online, they are in effect. Students are encouraged to check online for the updated versions of all policies.

See <https://scai.kennesaw.edu/codes.php>

Sexual Misconduct Policy

Kennesaw State University is committed to providing programs, activities, and educational environment free from all forms of sex discrimination. For more information click here. KSU issues this statement of policy to inform the community of the University's comprehensive plan addressing sexual misconduct, educational programs, and procedures that address sexual assault, domestic violence, dating violence, and stalking, whether the incident occurs on or off campus. This policy generally covers faculty, students, and

staff of the University, as well as third-parties. Third parties include but are not limited to guests, vendors, contractors, retirees, and alumni.

Further information associated with this university policy can be found under sexual misconduct on the Policy Portal website located at: <https://policy.kennesaw.edu/>

Course Accessibility Statement (ADA statement)

Kennesaw State University provides program accessibility and reasonable accommodations for persons defined as disabled under Section 504 of the Rehabilitation Act of 1973 or the Americans with Disabilities Act of 1990 as amended. Students who require accommodation in facilities, services, programs or activities should contact the Assistant Director for Disabled Student Services to arrange an individual assistance plan. Accommodations may include classroom accessibility, modified computer equipment, disability-accessible parking, assistance with note-taking sign language interpreting or captioning services, class materials in alternate format, library and laboratory assistance, and other accommodations. Determination of appropriate accommodations to be provided will be based upon documentation of the disability. Members of the public who require specific accommodations in facilities, services, programs or activities should contact the office sponsoring the service, program or activity at least five days in advance to arrange individual accommodations. Eligible students deliver certification letters to faculty at the beginning of each semester identifying the accommodations approved for that student. Faculty members are also instructed that they must provide students with special needs appropriate accommodations in a timely manner. The Assistant Director for disABled Student Support Services will work with faculty members to ensure that students receive appropriate accommodations. A student should notify Disabled Student Support Services in writing within two (2) days of any disagreement between the student and the faculty member if agreed upon academic adjustments are not provided in order to seek a resolution. A student who alleges discrimination on the basis of disability may file a grievance through the University's established grievance procedures. The following have been designated by the President of the University to provide assistance and ensure compliance with the ADA. Should a student require assistance or have further questions about the ADA, please contact either the ADA Compliance Officer for Students at 770-423-6443; the ADA Compliance Officer for Facilities at 470-578-6224; or the Director of Human Resources, ADA Compliance Officer for staff and faculty at 470-578-6030. For more information, go to kennesaw.edu/stu_dev/dsss.

Electronic Communication

The University provides all KSU students with an "official" email account with the address "students.kennesaw.edu" or "kennesaw.view.usg.edu" (in D2L). As a result of federal laws protecting educational information and other data, this is the sole email account you should use to communicate with your instructor or other University officials.

Web Accessibility

Kennesaw State University follows the guidelines of the Universal Design for Learning standard of web accessibility. Faculty use Word, PDF, and HTML formats when communicating electronic information to students whenever possible and appropriate in light of the goals of the course. Faculty are trained to use Web Accessibility Evaluation tools, e.g., WAVE (www.wave.webaim.org), and make adjustments as possible and appropriate in light of the goals of the course.

For free resources available to students on web accessibility, please visit the Web Accessibility Resources page at the Distance Learning Center: <http://www.kennesaw.edu/dlc/facultyresources/index.php#>

Copyright Law

Kennesaw State University adheres to USG's policy to respect the right of copyright. Holders and comply with copyright laws as set forth in the United States Copyright act. For more information, see the following link to USG's policy: <http://www.usg.edu/copyright/>

Electronic Recording and Social Media

Electronic recording performed without the consent of the people being recorded chills the free exchange of ideas. Academic freedom, free inquiry, and freedom of expression should not be limited by the fear that one's brainstorming, polemic discourse, speculative inquiry, or any other kind of expressed curiosity made within the space of a university classroom will be made public without one's consent. This fear is unacceptable regardless of whether one is in an online, hybrid, or face-to-face classroom setting. Accordingly, no person shall make public any electronically recorded class discussion without the written permission of the instructor. This policy is not intended to discourage electronic recording in the classroom or the use of social media when such actions are performed with the written consent of the instructor, and others as appropriate. Note: Faculty accommodate all reasonable requests to electronically record a class discussion; these requests must be documented by the Disabled Student Support Services available at: http://www.kennesaw.edu/stu_dev/dsss/prospect.shtml

Additional Items

Minimum Technology Requirements

- This class uses D2L as hosting site. Run a system check to ensure your computer work with D2L. Check out UITS D2L training: <http://uits.kennesaw.edu/support/d2ltraining.php>
- Internet Connection. A high-speed Internet connection such as DSL or cable Internet access is highly recommended. You can also computer labs on campus to complete the coursework.

Minimum Technical Skills Required

Students entering this course are expected to have following technical skills:

- General computer literacy. Students should be proficient with the basic functions of standard software packages (e.g., MS Word, Excel, PowerPoint, and Adobe Reader) and standard players (e.g., QuickTime, Windows Media Player). A list of primers on many of these technologies is available at https://apps.kennesaw.edu/portal/prod/app_uni_cdcc_publ/documents/
- A working knowledge of the D2L learning management system is required for participation in online courses.

Important Dates

- First Day of Classes:
- Breaks / Holidays:
- Last Day to Withdraw:
- Proctored Exam:
- Last Day of Classes:
- Graduation: