

**Commerce 4FY3
Introduction to FinTech
Winter 2021 Course Outline**

**DeGroote School of Business
McMaster University**

COURSE OBJECTIVE

This course provides a practical introduction to Financial Technology (FinTech), and establishes a knowledge base, that enables a student to critically assess this rapidly growing industry. Over four modules of three weeks each, students will obtain;

- a thorough business understanding of blockchain technology,
- a thorough understanding of the economics of blockchain businesses,
- ability to critically assess a FinTech business implementation,
- ability to prepare a FinTech whitepaper, and pitch it to a business audience.

The expectation is that students with practical knowledge in Financial Technology, will be well positioned to exploit the challenges and opportunities in this space.

INSTRUCTOR AND CONTACT INFORMATION

C01: Wed 14:30-17:30

Martin Butcher

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Telephone: (905) 403-8286

Class Location: **Virtual**

COURSE ELEMENTS

Credit Value: 3	Leadership: Yes	IT skills: No	Global view: Yes
A2L: Yes	Ethics: Yes	Numeracy: no	Written skills: Yes
Participation: Yes	Innovation: Yes	Group work: Yes	Oral skills: Yes
Evidence-based: Yes	Experiential: Yes	Final Exam: No	Guest speaker(s): Yes

COURSE DESCRIPTION

Financial technology is at the forefront of economic development and is paving the way for tectonic shifts in long established orders. It is giving rise to rapid changes in the way we make, manage, interact with, and even define, money. And while this can mean uncertainty and upheaval for incumbents, it presents a world of possibility for those able to innovate and adapt. The course will provide a broad overview of the FinTech industry and lay the groundwork for students to analyze and identify opportunities in this emerging sector.

This course is based around education through experiential learning, inquiry and case studies. It will also involve readings, lectures, class discussions and collaborative group work. The subject matter will give you an understanding of Financial Technology and provide you with insight to critically assess the trajectory of the industry and develop new innovations in Financial Technology.

LEARNING OUTCOMES

The course will provide students with an introduction to Financial Technology. Specifically, it will enable students to understand the following:

- What FinTech is, why it is a game-changer, who this technology is affecting and how, the corporate social responsibility associated with its use, and the current stage of development.
 - The nuts and bolts of blockchain, smart contracts, algorithms, and artificial intelligence.
 - Assess existing FinTech applications through the use of case studies
 - How to evaluate a proposed White Paper, and Fintech application.
 - FinTech security, privacy, and the importance of information.
 - Utility token, registry token, and FSCO financial regulation.
 - Innovation strategies at large financial institutions.
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COURSE MATERIALS AND READINGS

Avenue registration for course content, readings and case materials

➤ <https://avenue.mcmaster.ca/>

\$ FREE

COURSE OVERVIEW AND ASSESSMENT

Learning in this course results primarily from case study, templated evaluation, and in-class discussion. The balance of the learning results from the lectures, assignments, and group projects. All work will be evaluated on an individual basis; except for group work where all group members will share the same grade.

Missed tests/exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF. Late assignments will be penalized 10% for each day they are late

As this is a purely virtual course, course content will be delivered as per the below:

ACTIVITY	DELIVERY	DESCRIPTION	TOOL(S)
Lecture Core Content	A-synch	Recorded lecture vids (~10min. each)	Voiceover PPT in Echo360
Group Discussions	Both	Synch: Breakout rooms during lecture A-synch: Microsoft Teams private groups	Synch: Zoom or WebEx A-synch: Microsoft Teams
Live Lectures	Synch	1hr. live session; opportunity to elaborate on content, present challenges, engage discussion	Zoom or WebEx

Your final grade will be calculated as follows:

Assignment 1 (week 6)	FinTech Company Profile (individual)	20%
Assignment 2 (week 9)	Bitcoin Case Study (individual)	20 %
Assignment 3 (week 13/14)	FinTech Whitepaper Project (group)	40%
Engagement	In-class contribution (individual)	20%
Total		100%

COURSE DELIVERABLES

Assignment #1 (20%) – FinTech Company Assessment – Due Week 06

Individuals will identify a new (founded after 2012) FinTech company of interest and complete an assessment of the company’s short-term and long-term success, against a standardized analytical template. This assessment will be used to conclude as to whether the company would be worthy of a venture capital investment, or acquisition.

Assignment #2 (20%) – Bitcoin Case Study – Due Week 09

Individuals will submit a short paper responding to questions related to the Bitcoin case, which will examine the various implications of Bitcoin protocol, against a standardized analytical template. This assessment will be used to draw conclusions as to a company’s Corporate Social Responsibility, were it to implement this type of technology.

Assignment #3 (40%) – Group Innovation Project

As a group of 6, your group will propose a new FinTech innovation, and draft up a White Paper against a standardized template. Innovations can be wholly novel products/services not yet available in the market, or ventures positioned to compete with existing players.

You will be graded upon the rationale and justification behind your innovation, your strategy to bring it to market, and against a standardized template. Projects will require you to examine market need and demand, competitive landscape, regulatory and legal hurdles, market positioning, etc. The group innovation project will comprise of:

- **A Group Presentation (10%):** Your group will present an abbreviated version of the extended investor deck in a mock pitch to potential investors, entrepreneurs, executives and investors. You will be graded on the strength of the case made for your innovation, the quality of the pitch and your ability to address questions from experts in the Canadian FinTech sphere. **Due Week 13.**
- **A White Paper (30%)** presented as an extended investor deck. **Due Week 14.**

Engagement (20%)

Learning in this class will be driven by your class attendance, your participation in the weekly class discussion, and your active contribution within your group. Optimal participation is that perfect balance where you are able to make a valuable contribution to the discussion without commandeering the discourse. A detailed grading rubric will be posted on Avenue to Learn.

COMMUNICATION AND FEEDBACK

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants.

Instructors may solicit feedback via an informal course review with students by Week #4 to allow time for modifications in curriculum delivery.

REQUESTING RELIEF FOR MISSED ACADEMIC WORK

Students may request relief from a regularly scheduled midterm, test, assignment or other course components. Please refer to the policy and procedure on the DeGroot website at the link below;

<http://ug.degroot.mcmaster.ca/forms-and-resources/misled-course-work-policy/>

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

COURSES WITH AN ON-LINE ELEMENT

Students should be aware that, when they access the electronic components of a course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behavior's that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or

Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's [Academic Accommodation of Students with Disabilities](#) policy.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office ***normally within 10 working days*** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

EXTREME CIRCUMSTANCES

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labor disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your enrolment in Commerce 4FY3 will be considered to be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

COURSE SCHEDULE

WEEK	DATE			LECTURE AND ASSIGNMENT
1	Week 01 Jan 13	Module 1.1	BLOCKCHAIN TECHNOLOGY	Introduction and course overview. 1. Meet & greet 2. What is FinTech? 3. Why is it a game-changer? 4. Who is it affecting? 5. Corporate Social Responsibility 6. Where today's technology is at.
2	Week 02 Jan 20	Module 1.2		Nuts and bolts of Blockchain. 1. Blockchain benefits 2. Block structure walk-through 3. Bitcoin protocol walkthrough 4. Smart contract walkthrough 5. Consensus mechanisms 6. Types of blockchain 7. Layer architecture
3	Week 03 Jan 27	Module 1.3		The Whitepaper. 1. Business vs IT view 2. Solution Architecture 3. What do you need 4. Whitepaper evaluation 5. Walkthrough Assignment #1
4	Week 04 Feb 03	Module 2.1	BLOCKCHAIN ECONOMICS	Disintermediation/network business model. 1. Pros and cons of blockchain 2. Costing and financials impact 3. Corporate social responsibility 4. Using the long straddle 5. Tokens and the OSC 6. P2P lending

WEEK	DATE			LECTURE AND ASSIGNMENT
5	Week 05 Feb 10	Module 2.2		Case Discussion: Lending Loop 1. P2P Lending 2. Changing credit metrics
6	Week 07 Feb 24			READING WEEK – NO CLASS
7	Week 06 Feb 17	Module 2.3		Case Discussion: Robo-Advisors to Humans: We come in Peace 1. Automated wealth management 2. Changing organizational structures Assignment #1 due (20%)
8	Week 08 Mar 03	Module 3.1	BUSINESS USE CASES	Case Discussion: Bitcoin 1. Bitcoin Protocol 2. Blockchain mechanics' video 3. Alternative money 4. Immutable, but not complete
9	Week 09 Mar 10	Module 3.2		Case Discussion: CIBC - Internalizing Open Innovation FinTech innovation in Canadian financial institutions. 1. Corporate Social Responsibility 2. Change management premium Assignment #2 due (20%)
10	Week 10 Mar 17	Module 3.3		Case Discussion: The Rise of Ant Financial. Fin Tech innovation in international markets. 1. Size is not protection 2. Marketing: Product/Experience/Story.
11	Week 11 Mar 24	Module 4.1	WHITE PAPERS	Pitching to management, regulators, and investors.
12	Week 12 Mar 31	Module 4.2		Assignment #3 Group Presentations (10%) Pitches - Round 1
13	Week 13 Apr 07	Module 4.3		Assignment #3 Group Presentations (10%) Pitches - Round 2 Assignment #3 White Paper (30%) due midnight Friday Apr-09