

**Commerce 4FY3  
Introduction to FinTech  
Winter 2023 Course Outline**

**DeGroote School of Business  
McMaster University**

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***COURSE OBJECTIVE***

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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.

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***INSTRUCTOR AND CONTACT INFORMATION***

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<b>C01: Wed 08:30-11:20</b> <b>Martin Butcher</b> butchm1@mcmaster.ca	<b>C02: Fri 14:30-17:30</b> <b>Martin Butcher</b> butchm1@mcmaster.ca	<b>C03: Fri 11:30-14:30</b> <b>Martin Butcher</b> butchm1@mcmaster.ca
Telephone: (905) 403-8286 Class Location: <b>DSB AB102</b>	Telephone: (905) 403-8286 Class Location: <b>ABB B118</b>	Telephone: (905) 403-8286 Class Location: <b>ABB B118</b>

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***COURSE ELEMENTS***

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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

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## ***COURSE DESCRIPTION***

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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.

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## ***LEARNING OUTCOMES***

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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***

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Avenue registration for course content, readings and case materials

➤ <https://avenue.mcmaster.ca/>

\$ FREE

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## ***COURSE OVERVIEW AND ASSESSMENT***

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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

Your final grade will be calculated as follows:

<b>Assignment 1 (week 6)</b>	FinTech Company Profile (individual)	20%
<b>Assignment 2 (week 9)</b>	Bitcoin Case Study (individual)	20 %
<b>Assignment 3 (week 12/13)</b>	FinTech Whitepaper Project (group)	50%
<b>Engagement</b>	In-class contribution (individual)	10%
<b>Total</b>		<b>100%</b>

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## ***COURSE DELIVERABLES***

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

Individuals will assess Lending Loop's expected 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 both a company's Environmental Social and Governance (ESG) Policy, and its Corporate Social Responsibility (CSR), were it to implement this type of technology.

### ***Assignment #3 (50%) – Group Innovation Project***

As a group of 5, your group will propose/improve upon a 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 improvements upon existing FinTech solutions already competing in the market.

- ***A White Paper (35%). Due Week 13.***
- ***A Group Presentation (15%).*** Your group will present an abbreviated version of the White Paper that you have produced/improved upon. You will be graded against a pre-published marking rubric, and the strength of your innovations value-add proposition.  
***Due Week 12/13.***

### ***Engagement: Individual In-Class Contribution (10%)***

10 weekly engagement questions, as described in the Week 1 Engagement Questions document. Each fully answered weekly engagement question worth 1 mark.

## ***COMMUNICATION AND FEEDBACK***

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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.

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## ***REQUESTING RELIEF FOR MISSED ACADEMIC WORK***

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

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

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## ***ACADEMIC INTEGRITY***

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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.
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## ***COURSES WITH AN ON-LINE ELEMENT***

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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.

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### ***CONDUCT EXPECTATIONS***

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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.

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### ***ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES***

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

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

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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.

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### ***COPYRIGHT AND RECORDING***

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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.

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### ***EXTREME CIRCUMSTANCES***

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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.

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### ***ACKNOWLEDGEMENT OF COURSE POLICIES***

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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	WEEK OF			LECTURE AND ASSIGNMENT
1	Jan 09	Module 1.1	BLOCKCHAIN TECHNOLOGY	<b>Introduction and course overview.</b> <ol style="list-style-type: none"> <li>1. Meet &amp; greet</li> <li>2. What is FinTech?</li> <li>3. Why is it a game-changer?</li> <li>4. Who is it affecting?</li> <li>5. Corporate Social Responsibility</li> <li>6. Where today's technology is at.</li> </ol>
2	Jan 16	Module 1.2		<b>Nuts and bolts of Blockchain.</b> <ol style="list-style-type: none"> <li>1. Blockchain benefits</li> <li>2. Block structure walk-through</li> <li>3. Bitcoin protocol walkthrough</li> <li>4. Smart contract walkthrough</li> <li>5. Consensus mechanisms</li> <li>6. Types of blockchain</li> <li>7. Layer architecture</li> </ol>
3	Jan 23	Module 1.3		<b>The Whitepaper.</b> <ol style="list-style-type: none"> <li>1. Business vs IT view</li> <li>2. Solution Architecture</li> <li>3. Whitepaper evaluation</li> <li>4. Walkthrough Assignment #1</li> </ol>
4	Jan 30	Module 2.1	BLOCKCHAIN ECONOMICS	<b>Disintermediation/network business model.</b> <ol style="list-style-type: none"> <li>1. Pros and cons of blockchain</li> <li>2. Costing and financials impact</li> <li>3. Corporate social responsibility</li> <li>4. Using the long straddle</li> <li>5. Tokens and the OSC</li> </ol>
5	Feb 06	Module 2.2		<b>Case Discussion: Lending Loop</b> <ol style="list-style-type: none"> <li>1. P2P Lending</li> <li>2. Changing credit metrics</li> </ol>
6	Feb 13	Module 2.3		<b>Case Discussion: Robo-Advisors to Humans: We come in Peace</b> <ol style="list-style-type: none"> <li>1. Automated wealth management</li> <li>2. Changing organizational structures</li> </ol> <p style="color: red;"><b>Assignment #1 due (20%)</b></p>
7	Feb 20			<b>MID-TERM RECESS</b>

8	Feb 27	Module 3.1	BUSINESS USE CASES	<b>Case Discussion: Bitcoin: Investment or Illusion</b> 1. Bitcoin Protocol 2. Hamilton vs Satoshi 3. Central Bank Digital Currency 4. Non-Fungible Token
9	Mar 06	Module 3.2		<b>Case Discussion: CIBC - Internalizing Open Innovation</b> FinTech innovation in Canadian financial institutions. 1. Corporate Social Responsibility 2. Change management premium  <b>Assignment #2 due (20%)</b>
10	Mar 13	Module 3.3		<b>Case Discussion: The Rise of Ant Financial.</b> Fin Tech innovation in international markets. 1. Size is not protection 2. Marketing: Product/Experience/Story.
11	Mar 20	Module 4.1	WHITE PAPERS	<b>Industry Summary.</b> 1. From Crowd Funding to Digital Banking: The Evolution of Funding Societies. 2. R3 Corda: A Distributed Ledger Technology for Financial Services.
12	Mar 27	Module 4.2		<b>Assignment #3 Group Presentations (10%)</b> Pitches - Round 1
13	Apr 03	Module 4.3		<b>Assignment #3 Group Presentations (10%)</b> Pitches - Round 2  <b>Assignment #3 White Paper (30%) due midnight Friday Apr-07</b>