

**MBA F741
Introduction to FinTech
Fall 2024 Course Outline**

**Finance and Business Economics Area
DeGroote School of Business
McMaster University**

COURSE OBJECTIVE

This course provides a broad introduction to Financial Technology (FinTech), introducing you to key players and technologies in the sector and establishing a knowledge base that will enable you to critically assess this rapidly growing and highly competitive industry. This course builds on your previous learning, synthesizing diverse aspects of business and technology to instil an understanding of the challenges and opportunities in this nascent space.

INSTRUCTOR AND CONTACT INFORMATION

Section C01: Wed 14:30 – 17:20
Class location: RJC 236

Section C02: Wed 19:00 – 21:50
Class location: RJC 236

Instructor: Dr. Katya Malinova
malinovk@mcmaster.ca

Office Hours: TBA and by appointment
Course website: Avenue to Learn

Student TA: Sima Tafti
fallahts@mcmaster.ca

*This outline is current as of September 09, 2024.

COURSE ELEMENTS

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

COURSE DESCRIPTION

Financial technology is at the forefront of global 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.

Learning in this course is primarily through lectures and in-class discussions, but also includes readings, videos, out-of-class analysis, and collaborative group work. The subject matter will provide you with an understanding of Financial Technology and insights 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:

- How financial services have evolved; how the industry currently operates; key players and their roles; existing products.
- How FinTech has evolved; what is driving its growth; key players and their innovations.
- The competitive landscape of FinTech.
- The technologies that underpin FinTech innovations, including blockchain technology and the related infrastructure of the decentralized finance.
- The role of entrepreneurship in the FinTech sector.

REQUIRED COURSE MATERIALS AND READINGS

Avenue registration for course content, readings and case materials

- <http://avenue.mcmaster.ca>

\$ FREE

OPTIONAL COURSE MATERIALS AND READINGS

- Michael King. *Fintech Explained: How Technology Is Transforming Financial Services*. Ebook or paperback. Available on amazon and from the University of Toronto Press.
- Readings and reference materials for each topic will be posted on A2L as the course progresses.

\$39.95-
\$49.95

EVALUATION

Grade Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme:

LETTER GRADE	PERCENT	POINTS
A+	90-100	12
A	85-89	11
A-	80-84	10
B+	75-79	9
B	70-74	8
B-	60-69	7
F	00-59	0

EVALUATION

Learning in this course results primarily from in-class lectures and discussions, possibly including recorded materials and guest speaker talks, as well as out-of-class analysis. All work, except for the innovation projects and their peer assessments, will be evaluated on the individual basis. For the group projects, group members will share the same grade, adjusted by peer evaluation where warranted. Your final grade will be calculated as follows:

Components and Weights

Weekly quizzes	(individual)	12%
A1: FinTech profile (report)	(individual)	10%
A2: Group innovation project (multiple deliverables)	(group)	23%
A3: Assessment of a peer group project (multiple deliverables)	(group)	15%
Term test (in class)	(individual)	30%
Class Contribution	(individual)	10%
Total		100%

NOTE: The use of a McMaster standard calculator is allowed during examinations in this course. See McMaster calculator policy at the following URL:

www.mcmaster.ca/policy/Students-AcademicStudies/UndergraduateExaminationsPolicy.pdf

Course Deliverables

Weekly Quizzes (12%)

Following each lecture in weeks 2-10, a short multiple-choice question quiz will be assigned on the A2L portal of the course webpage. A sample non-graded quiz will be posted in week 1. The grade will be based on your best 8 (out of 9) graded quizzes. No make-up quizzes will be offered. If a student misses a quiz for legitimate reasons, the weight will be reallocated to the term test.

Assignment 1 (10%): FinTech profile

This assignment is worth 10% of your final grade and will be marked individually. You will choose a FinTech company from a list provided to you, provide a brief company profile, and explain why you would or would not invest in it. The deliverable is a written report. A2L for details.

Due: Tue October 15.

Assignment 2 (23%): Group FinTech innovation proposal.

Your group will propose a FinTech innovation for the Canadian market. Innovations can be wholly novel products/services not yet available in the market or ventures positioned to compete with existing players. Several deliverables are required for this assignment: a written report, a 2-page summary, and an in-class group presentation. In addition, an idea(s) outline is due on October 25. A2L for details.

Due Dates: Oct 25 (outline), Nov 11 (report and summary), Nov 27/Dec 04 (presentations; slides due the day before).

Assignment 3: Evaluation of the proposals

Your group will be assigned another team's proposal to evaluate, from a perspective of a funder/VC. You will need to provide constructive criticisms on another group's project, and explain whether you would fund the proposal and why. Two deliverables: a summary and a presentation. A2L for details.

Due Dates: Nov 27/Dec 04 (presentations; slides due the day before). Nov 29/Dec 03 for the summaries.

Class Contribution 10%

You are expected to actively participate in each class and to contribute to the in-class discussion, for instance, by asking and answering questions. Participation grades will be based on an assessment of a variety of factors, including the quantity and the quality of your in-class contributions. You must have a name card with your **first and last name** clearly written and displayed in front of you for every class.

Term Test (30%)

A term test (closed-book) will assess students' understanding and application of course contents at an individual level and will be held in-person in-class. A formula sheet with restricted content will be permitted. The test is 150 minutes long. These tests will consist of multiple choice and/or short answer questions. Additional details on content coverage and sample questions will be posted on the A2L.

COMMUNICATION AND FEEDBACK

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean:

<http://mbastudent.degroote.mcmaster.ca/contact/anonymous/>

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 Administrative Assistant.

Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

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 behaviour 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.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at:

www.mcmaster.ca/academicintegrity

Students are responsible for being aware of and demonstrating behaviour that is honest and ethical in their academic work. Such behaviour includes:

- following the expectations articulated by instructors for referencing sources of information and for group work;
- asking for clarification of expectations as necessary;
- identifying testing situations that may allow copying;
- preventing their work from being used by others (e.g., protecting access to computer files); and
- adhering to the principles of academic integrity when conducting and reporting research.

AUTHENTICITY/PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software.

All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ONLINE ELEMENT

All courses use some online elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, 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.

Students may be required to use the Respondus LockDown Browser and Respondus Monitor. The Respondus LockDown Browser is a downloadable program that allows a student to take an Avenue to Learn quiz in a secure environment. Quizzes can be set to use LockDown Browser or LockDown Browser.

For more details about McMaster's use of Respondus Lockdown Browser please go to <https://avenuehelp.mcmaster.ca/exec/respondus-lockdown-browser-and-respondus-monitor/>

The available information is dependent on the technology used. Continuation in a course that uses online 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.

ONLINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

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 behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx, Teams, 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.

ATTENDANCE

Arriving late or missing class disrupts the learning experience for both you and your peers. Punctuality and attendance are crucial to maintaining a respectful, professional and productive environment for everyone, including our faculty.

Instructors may use Top Hat in their course in a variety of ways, including to capture attendance in their classes. Attendance is recorded by submitting a unique 4-digit code displayed in your physical classroom using your personal device.

MISSED ACADEMIC WORK

Missed Mid-Term Examinations / Tests / Class Participation

Please do not use the online [McMaster Student Absence Form \(MSAF\)](#) as this is for Undergraduate students only. The MBA program will not accept an MSAF.

When students miss regularly scheduled term work which contributes 10% or more to the final grade, for legitimate reasons as determined by the Student Experience – Academic Office (SEAO (Student Experience Academic Office)), the activity necessary to compensate for the missed work will be determined by the course instructor. The compensatory activities assigned will vary with the nature of the course and the missed requirement. They include, but are not restricted to, an alternative assignment, a rescheduled midterm exam, or re-weighting the marks for the missed component to other mark components. Documentation explaining such missed work must be provided to the SEAO (Student Experience Academic Office) within five (5) working days of the scheduled date for completion of the work.

Acceptable reasons for missed work, along with the [Petition for Missed Term Work](#) and the [MBA Student McMaster University Student Health Certificate](#), can be found on the DeGroot MBA Student website (mbastudent.degroot.mcmaster.ca). Please direct any questions about acceptable documentation to the MBA Academic Advisors (askmba@mcmaster.ca).

University policy states that a student may submit a maximum of three (3) [Petition for Missed Term Work](#) per academic year, after which the student must meet with the Director of the program.

If term work is missed without an approved reason, students will receive a grade of zero (0) for that component.

Missed Final Examinations

Students must be available for the duration of the posted exam period regardless of their personal exam schedule. This is to ensure student availability throughout the entire exam period in the event that an exam must be rescheduled due to unforeseen circumstances (university closure, power outage, storm policy, etc.). A student who misses a final examination without valid reason will receive a mark of 0 on the examination.

Students who have missed a final exam for a valid reason can apply to the SEAO (Student Experience Academic Office) to write a deferred examination by submitting an [Application for Deferring a Final Exam](#) with supporting documentation. The application must be made within five days of the scheduled exam.

The [Application for Deferring a Final Exam](#) and the [MBA Student McMaster University Student Health Certificate](#) can be found on the DeGroot MBA Current Student website (mbastudent.degroot.mcmaster.ca)

Deferred examination privileges, if granted, are normally satisfied during the examination period at the end of the following semester. In select cases, the deferred examination may be written at a time facilitated by the SEAO (Student Experience Academic Office) (Student Experience Academic Office) and agreed to by the course instructor.

Requests for a second deferral or rescheduling of a deferred examination will not be considered.

ACADEMIC ACCOMMODATION FOR STUDENTS WITH DISABILITIES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is:

<http://sas.mcmaster.ca>

Use of Test Accommodations at McMaster University Burlington Campus Ron Joyce Centre

Whereas Student Accessibility Services (SAS), on Main Campus, determines all MBA student accommodations, the MBA Faculty Office manages the coordination of accommodations for tests, midterms, and exams at the Ron Joyce Centre in Burlington.

Process for Students

- Students must activate their accommodation(s) (e.g., extra-time, memory aid, etc.) for each upcoming test, midterm, or exam, at least two weeks in advance. Students can do this by emailing their Instructor and the DeGroot MBA SAS scheduling office at DSBSAS@mcmaster.ca. If a student cannot meet this deadline, they should contact DSBSAS@mcmaster.ca to discuss alternative arrangements. The program is committed to exploring flexibilities where possible to support students.
- All tests, midterms, and exams are booked synchronously with the class's start time. Any deviations from the start time (e.g. start earlier than the class to enable completion at the same end time) requires a discussion with their instructor on protocol at the time of accommodation activation.

- Students will leverage the accommodation (e.g., extra-time, memory aid, etc.), in a designated testing room. Rooms will be booked according to the student's SAS accommodation. Unless the accommodation states otherwise, students should expect that they will be writing in a room with other students. One or more invigilators will always be in the room.
- Following the request to activate the accommodation(s), dsbsas@mcmaster.ca will reach out to the student with their test, midterm, or exam details, including the date, time, and room number. As there may be other students writing tests in the room, we ask that students enter the room quietly and leave all personal items at the front of the room.

All policies and procedures, including restroom access, how extra-time is allocated for assessments under Universal Design, and the submission of memory aids in advance, are consistent with those of SAS on Main Campus. The only variance in procedure is communication around, and physical location of, assessment. There is not a dedicated testing space at RJC. Existing classrooms and lecture halls will be used for most testing. All SAS-approved accommodations will be honoured by our staff; however, core testing elements are not eliminated in alternative testing formats. Students should expect and plan for invigilation, incidental noise, and other potential distractions.

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 the SEAO (Student Experience Academic Office) **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation. 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.

POTENTIAL MODIFICATION TO THE COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

RESEARCH USING HUMAN SUBJECTS

Research involving human participants is premised on a fundamental moral commitment to advancing human welfare, knowledge, and understanding. As a research intensive institution, McMaster University shares this commitment in its promotion of responsible research. The fundamental imperative of research involving human participation is respect for human dignity and well-being. To this end, the University endorses the ethical principles cited in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans:

<http://www.pre.ethics.gc.ca>

McMaster University has mandated its Research Ethics Boards to ensure that all research investigations involving human participants are in compliance with the Tri-Council Policy Statement. The University is committed, through its Research Ethics Boards, to assisting the research community in identifying and addressing ethical issues inherent in research, recognizing that all members of the University share a commitment to maintaining the highest possible standards in research involving humans.

If you are conducting original research, it is vital that you behave in an ethical manner. For example, everyone you speak to must be made aware of your reasons for eliciting their responses and consent to providing information. Furthermore, you must ensure everyone understands that participation is entirely voluntary. Please refer to the following website for more information about McMaster University's research ethics guidelines:

<http://reo.mcmaster.ca/>

Organizations that you are working with are likely to prefer that some information be treated as confidential. Ensure that you clarify the status of all information that you receive from your client. You **MUST** respect this request and cannot present this information in class or communicate it in any form, nor can you discuss it outside your group. Furthermore, you must continue to respect this confidentiality even after the course is over.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your registration and continuous participation (e.g. on A2L, in the classroom, etc.) to the various learning activities of MBA F741 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.

ARTIFICIAL INTELLIGENCE

Students may use generative AI in this course in accordance with the guidelines outlined for each assessment, and so long as the use of generative AI is referenced and cited following citation instructions given in the assignment. Use of generative AI outside assessment guidelines or without citation will constitute academic dishonesty. It is the student's responsibility to be clear on the limitations for use for each assessment and to be clear on the expectations for citation and reference and to do so appropriately.

MBA F741: Introduction to FinTech Tentative Course Schedule

Week	Date	Assignment
1	Sep 11	Discuss: Class Outline, Participation, Groups Lecture: What is FinTech? Why now?
2	Sep 18	Lecture: Intro to Payments.
3	Sep 25	DUE: group self-sign-up & preferences close on <u>Fri Sep 27</u> . Lecture: Innovation in Payments. Open banking.
4	Oct 02	Lecture: FinTech in Lending and Credit.
5	Oct 09	Lecture: FinTech in Wealth Management
6	Oct 16	DUE: Assignment: FinTech profile on <u>Tue Oct 15</u> . Lecture: FinTech and Gen-AI in Personal Finance
7	Oct 23	DUE: Group Project Outline on <u>Fri Oct 25</u> Lecture: Payments revisited: CBDC, Stablecoins.
8	Oct 30	Lecture: Foundations of blockchain technology and crypto-economics
9	Nov 06	Lecture: Trading of cryptoassets. Intro to Decentralized Finance (DeFi).
10	Nov 13	DUE: Group Project Paper & Summary on <u>Mon Nov 11</u> Lecture: “Leftovers.” Time-permitting, Machine Learning in Fintech and InsurTech.
11	Nov 20	Term Test During Class Hours
12	Nov 27	DUE: Week 12 presentation slides on <u>Tue Nov 26</u> DUE: Assessment summaries for week 12 presentations <u>Fri Nov 29</u> Lecture: Group project and group assessment presentations
13	Dec 04	DUE: Week 13 presentation slides & assessment summaries <u>Tue Dec 03</u> DUE: Peer evaluations on Wed, Dec 05, 11:59pm. Lecture: Group project and group assessment presentations

The course further requires weekly participation and weekly A2L quizzes in weeks 2-10. Unless otherwise noted, the materials are all due at 11:59pm on the due date.

This schedule is tentative, and it may be changed during the semester at the discretion of the instructor. The instructor will provide advance notice to the students in case a change is made.