

# SS 4940G Fintech Course Outline

(Crosslisted with BUS 4628)

## 1. Course Information

#### **Course Information**

This course is designed for students who are interested in the transformation of banking and financial services through financial technologies – known commonly as "Fintech". This label covers a range of technologies that enable consumers to access financial services over their mobile phone or the internet. Through the many innovations introduced over the past ten years, retail customers can take out a loan, make a payment, transfer money overseas, or invest their savings electronically. Customers enjoy a better experience at a lower cost by transacting via a simple interface that is easier to navigate than traditional brick-and-mortar businesses. In addition, for many of these services, customers bypass traditional financial intermediaries who have profited from this activity, such as banks, mutual fund dealers, and money transfer companies.

Tuesdays and Thursdays from 2:10 to 3:30pm. Ivey Business School. Lectures start Jan 11<sup>th</sup> with a break from Feb 12 to 25. Lectures resume Mar 1<sup>st</sup> to March 31<sup>st</sup>.

## **List of Prerequisites**

Registration in Hons. Program in Financial Modelling, Actuarial Science, Statistics or Data Science. Department approval.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

## 2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
Chuck Grace		2326 (Ivey	(519)	
(Course Coordinator)	cgrace@ivey.ca	Business School)	661.3960	TBC
			(519) 661-	
<u>Dr. Cristián Bravo</u>	cbravoro@uwo.ca	WSC 280	2098	TBC

		2319 (Ivey	(519)	
TA Allison Bowes	abowes@ivey.ca	Business School)	661.5497	TBC

Students must use their Western (@uwo.ca) email addresses when contacting their instructors.

# 3. Course Syllabus, Schedule, Delivery Mode

## **Learning objectives**

By the end of this course, students will be able to:

- Assess the impact that Fintech will have on financial services and make a strategic recommendation to an industry player on how they should respond.
- Analyze and quantify the potential disruption to different lines of businesses and present their analysis to a venture capitalist, a financial incumbent, a non-traditional financial services firm or a regulator.
- Define the value proposition and to quantify the market opportunity for a Fintech solution and make a recommendation on how to grow the business.
- o Analyze career and investment opportunities in the fast-changing Fintech space.

#### **Course contents**

The pace of Fintech innovation is accelerating as the first-generation of technologies that enabled this digital transformation – mobile phones, the internet, and peer-to-peer networks – have been combined with newer technologies such as artificial intelligence, blockchain, cloud computing, and big data. These technologies not only lower the barriers to entry into banking and financial services, they have opened the doors to nontraditional players ranging from small start-ups to giant technology companies. As a result, financial incumbents – including the banks, insurance companies and other financial intermediaries – are facing many new competitors. This disruption is affecting every aspect of their businesses from front to back office, all business lines and customer segments, and even the way the financial system functions. The key question is what will happen to the financial incumbents that currently dominate this sector and how will they respond?

This elective begins with a road map of the Fintech ecosystem. It outlines the various stakeholders, and discusses the technologies underlying Fintech. We will also spend time reviewing the established theories behind digital disruption as well as some of the new, emerging theories. This section will include discussions on the threat from big tech companies who are moving into financial services by bundling financial products and services with their non-financial product offerings.

We will then take a deeper dive into the technologies driving the Fintech space including classes on how the technologies have been used in three of the verticals of the Fintech world: P2P and marketplace lending; Robo-advisors and digital wealth management; and cryptoassets.

We will bring the technology and digital disruption strategies together through workshops on design thinking and customer journey mapping. These workshops will be critical to the discovery, design and recommendations for your final project in the second half of the course.

Throughout the first half of the course, working in teams, you will start to formulate a business plan for a Fintech solution. As we move into the 2nd half of the course, you will be offered a chance to run your early ideas by industry experts who will provide you with detailed feedback.

During this time you will also apply your ideas and strategies for Fintech solutions during a game simulation.

The course then culminates with team presentations for your recommended Fintech solution.

#### **Course dates**

The course will follow Ivey Business School's schedule below.

Classes begin January 11th, 2022

Mid-semester break: February 12–27, 2022

Classes end: March 31st, 2022

## Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on Learn for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

Given the move to online lecturing, the course will be delivered via Zoom during January and until the University instructs otherwise. Zoom details are available in the Learn platform.

## 4. Course Materials

There is a mandatory text book for this course entitled:

"The Technological Revolution in Financial Services", edited by Michael King and Richard Nesbitt and published by University of Toronto Press, 2020. A number of class readings will come from this text. All other materials used for this course, including cases, will be provided digitally.

## **Technical Requirements**

A computer with a stable internet connection is required for the course, as well as a working microphone and webcam, and a stable internet connection.

We will use Learn, Ivey's LMS. We will send you usernames and passwords once the semester starts.

## 5. Methods of Evaluation

Evaluation will include three primary components – your contribution to the Game Simulation, classroom contribution and your final assignment. There is no exam. Group assignments will include a component for peer review.

## Game Simulation (20%)

Working in teams, you will compete in a simulation. Each team will represent a participant in the financial services industry pursuing a digital disruption strategy. Each team will be required to identify the markets they wish to compete in, the services they plan to offer, the technologies they will deploy and the tactics they will use to deliver on their chosen strategy. The simulation will be conducted over three 80-minute classes with time between to analyze and adapt to changing competitive dynamics.

The actual outcome from the sim (team rankings) will have a minimum influence over grades. Instead, teams will be graded for how well they incorporate the theories and practices learned over the course into their strategies. There will also be a component for peer review.

## **Group Assignments (50%)**

There are two components to the grading of the capstone, group assignment – the <u>interim report</u> worth 15% and the <u>final report/presentation</u> worth 35%. We will dedicate two classes for the team presentations at the end of the course.

Each student will be part of a team. We will be assigning teams the week of Jan 18, 2022.

The team project will focus on a challenge question which will be confirmed at the beginning of the term. The teams will be expected to

- Use the challenge question to identify and analyze a target market within financial services. Both **primary and secondary research** is expected. You may reference and source third party analysis but I still expect to see evidence of original thought in your insights.
- Use **design-thinking** techniques to explore Fintech solutions that will address a core client solution (point of pain or unmet need).
- **Build a business plan** to deploy your solution. The business plan can be from a start-up, intermediary, incumbent or government perspective.

On March 10<sup>th</sup>, March 15<sup>th</sup> and March 17<sup>th</sup> 2022,, you will 'pitch' your idea to an industry panel that will include both industry, academic and regulatory experts. They will provide each team with feedback to consider for their final report and 'pitch'. Attendance at these panels is mandatory.

Finally, during the week of March 24th, 2022, each team will present their final report to the class.

We will be using peer evaluations for all teamwork. These peer evaluations will be used to modify each team member's final grade. If there is evidence that a team member did not make a substantial contribution, that individual may receive a lower grade than their teammates and possibly a failing grade on this project.

## **Constraints & Expectations**

• Teams will be assigned by the lecturers during the week of <u>Jan. 18<sup>th</sup></u>, <u>2022</u>. You will use the same teams for both the interim and final report. Each team will have 5 to 6 members chosen

- for their diversity of backgrounds and skills for example; finance, technology, strategy and marketing.
- A copy of your interim report, including the names of your group members, is to be uploaded to Learn by 11:59 pm March 1<sup>st</sup>, 2022.

## **Interim Report (15%)**

- The Interim report should consist of a written submission of no more than 10 pages single spaced and 12-point font excluding appendixes and charts.
- The first page of the report should include an executive summary that provides the reader with a summary of the report and what they can expect to read on the subsequent pages.

#### Marking Rubric – out of 100

- Clarity including grammar and spelling (20 marks)
- Research scope, completeness and innovative insights (40 marks)
- Synthesis and Business Plan qualitative and quantitative, supported by research, accuracy and thoroughness (30 marks)
- Impact the extent to which the research, synthesis and business plan build on each other to create an impactful solution. Note that "impactful" encompasses all of the key stakeholders. (10 marks).

## Final Report (35%)

• The final report should consist of a written submission - 20 pages – single spaced and 12-point font – excluding appendixes and charts.

## Marking Rubric (Final Report & Presentation) – out of 100

- Clarity including grammar and spelling (20 marks).
- Research scope, completeness and innovative insights (15 marks).
- Synthesis and Business Plan qualitative and quantitative, supported by research and insights (35 marks).
- Impact the extent to which the research, synthesis and business plan build on each other to create an impactful solution. Note that "impactful" encompasses all of the key stakeholders (15 marks).
- Presentation –the clarity and confidence displayed in your final presentation and your defense of any questions (15 marks). Note that this component will be derived in part by your classmates.

## Class Contribution (30%)

The classroom discussion represents a unique opportunity for you to develop and enhance your confidence and skill in articulating a personal position, reacting "on the spot" to new ideas and receiving and providing critical feedback from a group of assertive and demanding colleagues. This is an opportunity that we would encourage all of you to seize. The grade we assign for your classroom contribution is a careful, subjective (on our part) assessment of the value of your input to the classroom

learning. That contribution can take many forms including a good assessment of the problem, identification of imaginative yet realistic solutions to the problem, a carefully thought-out analysis of alternatives or an effective strategy for implementation of the alternative chosen. A contribution can also be achieved through a level of questioning that causes the class to rethink its analysis and position. Emphasis will be placed on the quality of contribution. Valued contributions include starting a class in a useful way, in-depth analysis, and identifying key "learning points" from a case. At the end of the course, we add up the class-by-class grades then rank your total relative to others in your class to arrive at a final grade.

## **Covid-19 and Physical Distancing**

Due to the Covid-19 virus and the need for unusual safety measures, this course will be a combination of online exercises and video conference (Zoom) classroom sessions. Should a student be unable to join the onsite sessions because of health concerns, they will be able to join via video conferencing (Zoom).

For sessions held via video conference, students are still expected to contribute to classroom discussions but I recognize contribution may be more challenging than in a live class. To compensate, we will also be using post-class reflections as a means to facilitate valued insights for your peers. The post-class reflections will be submitted as an assignment on Learn/Owl and limited to 150 words. The reflections will be evaluated by both faculty and your peers. You are encouraged to submit as many post-class reflections as you wish but you will be marked on quality not quantity.

We expect each student to be present and prepared for each class (see also Attendance section below). Absences without notification or unjustified absences will have a negative impact on your class contribution grade (i.e., you will lose class contribution marks). Lack of preparation and "negative" comments or actions (e.g., personal comments directed at classmates, inappropriate classroom behavior, etc.) may also lower your class contribution grade.

The following list might be of some help.

#### Outstanding Contribution (90-100%)

- Contributes at the highest levels throughout the class;
- Contributions indicate thorough preparation;
- Contributions reflect careful attention to the ongoing discussion;
- Contributions include strong follow-up comments and questions;
- Helps integrate financial management concepts with other subjects;
- Frequently explains difficult points or concepts;
- Provides sustained strong support to enrich classroom learning;
- Builds and develops outstanding arguments for a position.

## Excellent Contribution (80-89%)

- Contributes frequently to discussions;
- Contributions indicate careful preparation;
- Contributions reflect attention to and consideration of the ongoing discussion;
- Explains difficult points and concepts;

- Helps guide class discussions;
- Regularly builds and develops strong arguments for a position.

## Good Contribution (70-79%)

- Contributes fairly regularly to discussions, but primarily in the beginning of the class;
- Contributions indicate consistent preparation;
- Contributions reflect thoughtful responses to the ongoing discussions;
- Raises questions that help focus on difficult points or concepts;
- Occasionally builds reasonable arguments for a position.

## Fair Contribution (60-69%)

- Contributes irregularly to class discussions;
- Gives occasional indication of preparation;
- Rarely builds on the ongoing discussion.

## Poor Contribution (50-59%)

- Contributes rarely to discussions;
- Gives little indication of preparation and thought;
- Does not aid in providing a positive atmosphere for meaningful discussion.

## Unsatisfactory Contribution (0-49%)

- Almost never contributes to discussions;
- Gives minimal indication of preparation or thought;
- Actively inhibits or impedes the course of class discussions;
- Misses a significant number of class sessions.

Contribution can be negative as well as positive. Negative contributions, including lack of preparation, lack of respect, negative comments or absence from class without notice, will also be taken into account.

## **Expectations**

You are expected to be fully engaged in the entire learning process. This means devoting time and energy to preparation before class, including learning team meetings (if applicable), listening to others during class discussions and engaging in class discussions. Collective reasoning and discovery are critical to the successful application of the case method. Prior to any case discussion, engaging in discussions with (or examining notes from) others who may have already experienced the case is a clear violation of our norms.

Unless explicit instructions are received from us to the contrary, your preparation must be limited to the information provided by your instructor, plus your own experience and that of your class peers. Class contributions should be based exclusively on your preparation and discussions with members of your cohort classmates, and not augmented with information obtained anywhere else. Information related to cases (for information obtained related to exercises, exams, reports or quizzes see the Plagiarism section below and references to Scholastic Offenses) that have been obtained from sources other than your instructor in paper, electronic or verbal form is not permitted to be used for class contribution

purposes. Such prohibited information includes, but is not limited to, the following:

- o Exam or report feedback (related to a particular case) for other students or provided in other years
- Notes, spreadsheets, etc. specific to cases (obtained before the case has been taught) prepared by students in other cohorts or years.
- Company information that is not provided in the case (and that is not derived from your own experience)
- Teaching notes: If it is determined that such prohibited information is used in class discussions, such an incident will be deemed to be a violation of Ivey's Student Code of Professional Conduct (see separate policy including penalties for breaches).
- Obetailed note-taking during class can often be distracting for others and counterproductive to your own learning. Instead, we would advise you to be selective in taking notes during class. At the end of each class or at the end of the day, it is a good idea to consolidate what you have learned. Using your computer during class for personal activities such as reading or writing e-mail, writing letters, surfing the Web, playing games, etc. is also distracting and counterproductive and violates our norms.
- We will have a number of guests from the investment industry to class. These individuals are typically from out-of-town and have made a special to attend and interact with you, sharing their experiences. Your actions during such visits reflect both on you and on the school as a whole. I expect that you will be prepared for their visit (e.g., have a cursory understanding of the firms they represent and be prepared with questions you might have as well as being prepared for any case discussions). I also expect that you will be attentive during their presentations (i.e., closing your notebooks).

#### **Accommodated Evaluations**

This course follows Ivey Business School's attendance and accommodation policies. Students are reminded that the '2 allowable absences' still count towards the 25% attendance policy. If absenteeism has reached 25 percent, you are not eligible to submit the final assignment and you may fail the course. (http://www.uwo.ca/univsec/pdf/academic\_policies/exam/attendance.pdf).

Only after three 3 days of consecutive absence in any one course will documentation be accepted for consideration of academic accommodation. Students at that point are also required to meet with their Academic Counsellor and provide documentation.

Ivey's policy for exam absence due to medical illness requires a student to seek medical documentation on or before the exam date. Documentation must be provided to the HBA Program Services office for review. Please see our complete exam attendance policy <a href="http://go.ivey.ca/missedexams">http://go.ivey.ca/missedexams</a>

# 6. Student Absences

#### **Academic Consideration for Student Absences**

As this is a crosslisted course with Ivey, please note there are **no SRA absences allowed.** Thus, standard policies apply. Students should also note that individual instructors are not permitted to receive

documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.

For the policy on Academic Consideration for Student Absences – Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/accommodation\_illness.pdf and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic policies/appeals/medicalform.pdf.

## **Religious Accommodation**

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

https://multiculturalcalendar.com/ecal/index.php?s=c-univwo.

# 7. Accommodation and Accessibility

## **Accommodation Policies**

Students with disabilities work with Accessible Education (formerly SSD), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/Academic Accommodation\_disabilities.pdf,

## 8. Academic Policies

The website for Registrarial Services is http://www.registrar.uwo.ca.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

**Scholastic offences** are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/scholastic\_discipline\_undergrad.pdf.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

# 9. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: https://www.uwo.ca/sci/counselling/.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: https://www.uwo.ca/se/digital/.

Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mentalhealth) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.