FINANCIAL ECONOMICS ECONOMICS EC3332 A-001

Department of Economics Western University

Fall 2020

General Information

Instructor Jorge Cruz Lopez

Important Note The instructor will be working remotely this semester due to Covid-

19 restrictions. Please use **Zoom with your Western account** for

office hours and lectures.

Office SSC 4091

Phone 519-661-2111 ext. 85323

Email jcruzlop@uwo.ca

Course Website https://owl.uwo.ca/portal

Office Hours Tuesdays 4:30PM to 6:30PM (via Zoom)

Term Fall (September 9 to December 9, 2020)

Lecture Times Wednesdays 7:00PM to 10:00PM
Lecture Location Synchronous online (via Zoom)

Lectures will not be recorded or distributed to students (see Method of Instruction and Attendance Requirements)

Final Exam Date No Final Exam

Credits 0.50

Prerequisites Economics 2220A/B, Economics 2222A/B,

and Economics 2260A/B

Pre- or corequisites <u>Economics 2261A/B</u> and <u>Economics 2223A/B</u>

Antirequisites Economics 2121A/B, Economics 2181A/B, Economics 2186A/B (if

taken 2013-2014, 2014-2015), Economics 2300A/B, Economics

3346A/B, and MOS 3316A/B

Calendar Description Economics 3332A/B will be concerned with the determination of

asset prices. Topics include market efficiency, portfolio choice, derivative securities, and the term structure of interest rates.

Undergraduate

Inquiries

519-661-3507or SSC Room 4075 or econugrd@uwo.ca

Registration

You are responsible for ensuring you are registered in the correct courses. If you are not registered in this course, the Department will not release any of your marks until your registration is corrected. You may check your timetable by using the Login on the Student Services website at https://student.uwo.ca. If you notice a problem, please contact your home Faculty Academic Counsellor immediately.

Prerequisite Note

The prerequisites for this course are: <u>Economics 2222A/B</u>, and <u>Economics 2260A/B</u>. Pre- or corequisites for this course are: <u>Economics 2261A/B</u> and <u>Economics 2286A/B</u>. Antirequisites for this course are: <u>Economics 2121A/B</u>, <u>Economics 2186A/B</u> (if taken 2013-2014, 2014-2015), <u>Economics 3346A/B</u>, and MOS 3316A/B.

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken any antirequisite courses. Lack of prerequisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record but will ensure that spaces become available for students who require the course in question for graduation.

Course Objectives

The objective of this course is to introduce students to the theory and empirical methods underlying sound asset pricing and investment practices in financial markets. The course will also provide an overview of the institutional and contractual arrangements governing these markets. Topics include time value of money, risk and return trade-offs, portfolio choice, equilibrium and arbitrage pricing models, fixed income securities, financial institutions and, if time permits, selected topics on derivative securities.

Learning Outcomes

After successful completion of the course, students should be able to:

- 1. Evaluate risk and return trade-offs in financial assets
- 2. Understand optimal portfolio allocation strategies
- 3. Understand the valuation of equity and fixed-income securities
- 4. Understand equilibrium and arbitrage pricing models
- 5. Develop simple investment and trading strategies
- 6. Understand the institutional environment governing financial markets in Canada

Method of Instruction

There will be one lecture per week delivered online via Zoom. The zoom link will be distributed to registered students ahead of the first lecture. Please note that only participants using UWO credentials will be given access to the class.

Lectures will consist of a combination of presentations and class discussions. In addition to the graded components of the course (see <u>Grading</u> section), a set of **required readings** will be assigned every week (see <u>Course Schedule and Readings</u>). **Students must complete all required readings prior to the lecture to which they are assigned.**

Lectures are expected to be interactive and active participation is strongly encouraged and graded. During lectures, the instructor will randomly select students to present a summary of the assigned readings. Students will be granted participation marks based on the quality of their summaries and class discussions.

Please note that due to time constraints, not all assigned reading materials will be covered in class. However, students are still responsible for studying these materials as they will be included in the graded components of the course (i.e., assignments and quizzes).

Attendance Requirements

Students enrolled in the course are expected to attend all online lectures (see <u>Method of Instruction</u> section) at the scheduled times (see <u>General Information</u> section).

Lectures for this course will not be recorded or distributed to students. In addition, students are neither allowed to record nor allowed to distribute lectures, presentations or other course material (see Important Notes section).

Except for students with approved accommodations or a documented illness, no special provisions will be made for students who miss a lecture. Prior to registering in this course, students should understand that their absences could adversely affect their overall class performance. Therefore, students who cannot attend class regularly should not enroll in the course, and if they do, they do so at their own risk.

Online Etiquette

Some components of this course will involve online interactions. To ensure the best experience for all students, please honor the following rules of etiquette:

- Connect to class on time.
- Use a desktop computer or laptop if possible (as opposed to a cell phone or tablet)
- Ensure that you are in a private location to protect the confidentiality of discussions.
- To minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise.
- Please be prepared to turn your video camera off at the instructor's request if the internet connection becomes unstable.
- Unless invited by your instructor, do not share your screen in the meeting.

The course instructor will act as moderator for the class and will deal with any questions from participants. To participate, please follow these guidelines:

- If you wish to speak, use the "raise hand" function and wait for the instructor to acknowledge you before beginning your comment or question.
- Remember to unmute your microphone and to turn on your video camera before speaking.
- Self-identify when speaking.
- Remember to mute your microphone and to turn off your video camera after speaking, unless directed otherwise.

Other general considerations:

- Keep in mind the different cultural and linguistic backgrounds of the students in the course
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately.
- Note that disruptive behavior of any type during online classes, including inappropriate use of the chat function, is unacceptable.
- Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

Required Textbook

Bodie, Z., Kane, A., Marcus, A.J., Switzer, L, Stapleton, M., Boyko, D., and Panasian, C. (2019), Investments, McGraw-Hill Ryerson, 9th Canadian Edition. ISBN-10: 1259271935.

Suggested Textbooks

Students should consider using the following books to support their learning for this course and for future reference:

Berk, J., DeMarzo, P., and Stangeland, D. (2018), Corporate Finance, Pearson Canada, 4th Canadian Edition. ISBN-10: 0134632281

Campbell, J. (2017), Financial Decisions and Markets A Course in Asset Pricing, Princeton University Press, 1st Edition. ISBN-10: 0691160805.

Cochrane, J. (2005), Asset Pricing, Princeton University Press, Revised Edition. ISBN-10: 0691121370.

Hull, J., (2017), Options, Futures, and Other Derivatives, Pearson, 10th Edition. ISBN-10: 013447208X.

Poitras, G. (2004), Security Analysis and Investment Strategy, Wiley-Blackwell 1st Edition. ISBN-10: 9781405112482.

Additional Material

Lecture notes, practice problems, assignments and other supplemental material will be available through the course website. Additional readings (e.g., book chapters, academic articles, etc.) will be available through the course website or the University Library.

Materials available for download from the course website will be posted in HTML, PDF, PowerPoint, Word or Excel format. Students should have access to these software packages while taking the course.

Office Hours

All office hours will be held online via Zoom. The zoom link will be distributed to registered students during the first lecture.

Students having difficulty understanding the course material are strongly encouraged to attend office hours as soon as possible to clarify their understanding. Most of the topics covered in the course require a clear understanding of concepts previously covered in class or in prerequisite and corequisite courses.

During office hours, the instructor will try to explain the concepts that need clarification. For questions involving assignments, students are required to show that they have attempted to solve the assigned problems before the instructor provides any assistance. The instructor will not give the answers to any of the problems in the assignments prior to their due date.

Communications

Except for lectures and office hours, students should use email for communicating with the instructor. Questions that require the explanation of complex concepts or typing equations should be asked during office hours and will not be answered by email.

Emails will be answered within 24 hours <u>during weekdays only</u>. Emails sent on Fridays or during the weekend will be answered the following Monday. Emails sent during a holiday, will be answered the next working day.

Student emails should include the course code (i.e., Econ 3332) in the subject line and the student's full name and ID in the signature. The instructor will only answer emails from Western University accounts. Emails from third party accounts will be disregarded.

Grading

Total	100%
Quizzes (Best 4 out of 5)	55%
Assignments (4 Problem Sets)	40%
Participation	5%

Participation

Work type:

Individual

Context:

- Students are expected to actively contribute to class discussions.
- During each lecture, the instructor will randomly select a few students to present a summary of the assigned readings for that lecture.

Evaluation:

- Students will be evaluated based on the quality of their contributions to class discussions, as well as on their demonstrated ability to summarize, explain and apply the concepts covered in class and in the assigned readings.
- Students will have the option to join a Trading Simulation Competition (TSC) within the
 first two weeks of the course. Students can accumulate participation marks by placing
 and properly documenting trades. Additional instructions regarding the TSC will be
 provided during the first lecture.
- Students will have the option to complete a Preliminary Math and Statistics Test (PMST)
 within the first two weeks of the course. Students can accumulate participation marks by
 fully completing the PMST. Additional instructions regarding the PMST will be provided
 during the first lecture.

Assignments (4 Problem Sets)

Work type:

• Groups (minimum 3 students, maximum 4 students)

Context:

- Students are required to **solve four problem sets in groups**. Students can select their own groups, but they should remain in the same group throughout the course.
- Students are required to submit an electronic copy of their assignments. All assignments should be uploaded as a single file (preferably in PDF format) to the course website.
- Acceptable electronic formats for assignments are MS Word, MS Excel, and PDF. No other formats will be accepted.
- Assignments must be typed and include the Group Assignment Grading Sheet provided
 in the course website. Equations and some calculations may be handwritten but all
 handwriting must be clear and legible. No marks will be given for work that is difficult to
 read or understand.

- All assignments must be submitted by the beginning of the session when they are due.
 Students should check the course website to know when a new assignment is posted and when it is due (see <u>Course Schedule and Readings</u> section).
- Assignments submitted by email will not be accepted.
- Students should always keep a copy of their assignments for their own records.
- Students are expected to know how to use MS Excel, which might be required for completing assignments and other graded components of this course. Other software packages (e.g., R, Matlab, Python, etc.) may be used but are not required.

Evaluation:

- Each group will be graded based on the accuracy and style of its assignments.
- In addition, each student's individual contribution will be evaluated by other group members using the *Group Assignment Grading Sheet*.
- Except for extenuating circumstances, where all students in a group are granted
 accommodation according to University policies and procedures (see the *Policy on Tests,*Final Exams and on Missed Academic Responsibilities below), late assignments will not
 be accepted and will receive a grade of zero.
- Graded assignments will be returned to students within two weeks of their submission.

Quizzes

Work type:

Individual

Context:

- Students are required to write five quizzes.
- Quizzes will take place during lectures. Students are required to solve all quizzes during the times allotted in the lectures where they are scheduled.
- Quizzes are cumulative and will cover all the material assigned up to the date of the quiz (i.e., class notes, assignments, problems and required readings).
- Quizzes are closed-book and closed-notes assessments that must be solved individually. Students who try to consult their textbooks, notes or other external resources while solving a quiz will likely run out of time and will not be able to complete the assessment.
- Students are only allowed to use the following materials when solving a quiz:
 - Personal computer to access the quiz through the course website (no other material or communications should be accessed with a computer or personal device)
 - o Pens, pencils, scrap paper and erasers
 - o Non-programmable calculators
 - One formula sheet
- Formula sheets should <u>only</u> include formulas (i.e., paragraphs, graphs, and other materials are not allowed). The formula sheet for quizzes 1 to 3 should not exceed one single-sided page. The formula sheet for quizzes 4 and 5 should not exceed one double-sided page. In both cases, a page refers to a letter size page (215.9 × 279.4 millimeters or 8.50 × 11.00 inches). Violations will be subject to mark deductions.

- Students are required to upload their formula sheets to the course website prior to the beginning of the lecture where a quiz is scheduled. Failure to do so will result in mark deductions.
- Formula sheets should be written and uploaded individually and cannot be shared among students.
- Students should check the course website to confirm the date and time of each quiz (see Course Schedule and Readings section).

Evaluation:

- Each guiz will be graded out of 100 marks.
- Final course grades will be determined using the best four (out of five) quizzes; that is the four quizzes with the highest marks.
- Except for extenuating circumstances, where a student is granted accommodation
 according to University policies and procedures (see the *Policy on Tests, Final Exams and*on Missed Academic Responsibilities below), late quizzes or quizzes not written during
 scheduled times will not be accepted and will receive a grade of zero.
- Grades will be uploaded in the course website within two weeks of the quiz date.

Missing a Deadline or Quiz

Assignments:

Missing a deadline will result in obtaining a grade of zero in the corresponding course component. If students are in a situation where they cannot meet a deadline, they should contact the instructor prior to the deadline to discuss a possible extension. Extensions are only granted in very special circumstances and only when the student has been granted accommodation in accordance with University policies and procedures (see the Policy on Tests, Final Exams and on Missed Academic Responsibilities below).

Quizzes:

- Missing a quiz without a documented justification and accommodation granted in accordance with University policies and procedures, will result in a grade of zero for that component of the course.
- If a student misses one quiz and has been granted accommodation in accordance with University policies and procedures, the student's final grade will be determined using the four remaining quizzes.
- If a student misses two or more quizzes and has been granted accommodation in accordance with University policies and procedures, the weight of the missed quizzes, starting with the second missed quiz, will be distributed across all other quizzes written by the student.
- In accordance with University policies, students unable to write a quiz because of illness
 or other circumstances beyond their control must contact the instructor in writing as
 soon as possible explaining the situation.
- Quizzes for students who have missed previous quizzes might be longer or more difficult than those given to students who have not missed previous quizzes. These modifications are needed to conduct a comprehensive assessment of the course material.

Appealing a Grade

Assignments and Quizzes:

- If students disagree with the grade obtained in an assignment or a quiz, they should submit an email to the instructor with a request to get their assignment or quiz regraded.
- Regrading requests should state why the grade should be reviewed and they must be submitted no later than one week after the grade for the assignment or quiz in question is released to students. Except as allowed by <u>university academic appeals policies</u>, no claims will be accepted after this period.

Important Notes

Changes to Course Syllabus:

- Every effort has been taken to make the information in this document as complete and as consistent as possible. However, the instructor reserves the right to modify the course syllabus or required material at his discretion.
- If this document is changed, the instructor will communicate the changes to students registered in the course by email and an updated version of the outline will be posted on the course website.

Copyright:

- All lectures and all course materials, including presentations, lecture notes, supplementary notes, syllabi, etc. are protected by copyright.
- Students may take notes based on course materials for their own educational purposes only but are not allowed to distribute those materials publicly or for commercial purposes without the written consent of the course instructor or authors.
- No one, except for the course instructor, is allowed to record or distribute lectures or
 other course materials. No student, Teaching Assistant, or any other person or entity is
 allowed to record (or allow others to record), reproduce (or allow others to reproduce),
 post (or allow others to post) or distribute (or allow others to distribute) lectures,
 presentations, lecture notes, wiki material, or any other course materials publicly or for
 commercial purposes without the written consent of the course instructor.

Course Schedule and Readings¹:

Week	Dates	Topics	Required Readings	Notes
1	Sep 9	Introduction: The Investment Environment in Securities Markets	Ch.1, 2*, 3* and 4	
2	Sep 16	Risk, Return and the Historical Record	Ch. 5	Quiz 1
3	Sep 23	Risk, Return and the Historical Record	Ch.5	Due: A1
4	Sep 30	Capital Allocation to Risky Assets	Ch. 6	
5	Oct 7	Optimal Risky Portfolios	Ch.7, 9	Quiz 2
6	Oct 14	The CAPM and Index Models	Ch.9, 8	
7	Oct 21	The CAPM and Index Models	Ch.9, 8	Due: A2
8	Oct 28	APT and Multifactor Models	Ch. 10	Quiz 3
9	Nov 4	Fall Reading Week Classes susper	nded	
10	Nov 11	The EMH, Behavioural Finance and Technical Analysis	Ch. 11, 12* and 13	Due: A3
11	Nov 18	Empirical Evidence on Security Returns Bond Prices and Yields	Ch. 14	Quiz 4
12	Nov 25	The Term Structure of Interest Rates	Ch. 15	
13	Dec 2	Managing Bond Portfolios	Ch.16	Due: A4
14	Dec 9	Additional Topics (e.g., Derivatives, Security Analysis) and Review	Ch.16	Quiz 5

¹ This schedule is tentative and subject to change. See the course website for additional readings and updates.

^{*} Readings assigned for self-study

Please Note Department & University Policies for 2020-2021

The University expects all students to take responsibility for their own Academic Programs. Students should check their registration to ensure they are enrolled in the correct courses.

Academic Rights and Responsibilities: Students should be familiar with their "Academic Rights and Responsibilities" as outlined here in the Western Academic Calendar. Claiming that "you didn't know what to do" is not an acceptable excuse for not following the stated procedures.

Guidelines and Policies for Students are posted online in the current Western Academic Calendar at http://westerncalendar.uwo.ca. Undergraduate information for the Faculty of Social Science can be found at: https://www.ssc.uwo.ca/undergraduate/index.html and for the Department of Economics at: https://economics.uwo.ca/undergraduate/index.html.

Rules of Conduct for Examinations: Students are expected to know the university's Rules of Conduct for Examinations, available here.

Cheating and Academic Offences: Students are responsible for understanding what it means to "cheat." The Department of Economics treats cheating and other academic offences very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in Economics courses or programs. The University may impose further penalties such as suspension or expulsion.

Plagiarism: Plagiarism is an academic offence. Students must write their essays and assignments in their own words. Ideas/passages taken from another author must be referenced with footnotes or citations and acknowledged with quotation marks where appropriate. Western University uses software to check for plagiarism and students may be required to electronically submit their work. Those found guilty will be penalized as noted in point 3. See Scholastic Discipline for Undergraduate Students here in the Western Academic Calendar.

Academic Appeals: Students should refer to the Student Academic Appeals section <u>here</u> in the Western Academic Calendar. Please note the relevant deadlines.

Systematic Adjustments: Systematic adjustments of class grade distributions (either up or down) can occur in Economics courses. The systematic adjustment of a class grade distribution is **not** grounds for an appeal.

Add/drop deadlines:

Deadline to <u>add</u> a first term half course: Thursday September 17, 2020
Deadline to drop a first term half course: Thursday November 12, 2020

Oversleeping or Misreading the Exam Schedule: Faculty of Social Science policy states that oversleeping or misreading the exam schedule is NOT grounds for a makeup. This rule applies to all exams in the Department of Economics.

End of Term Travel: Students must book travel arrangements AFTER final exam dates have been posted; travel is not an acceptable excuse for absence from a final exam.

Rewriting Exams and Retroactive Reweighting are NOT Permitted: Students who proceed to write a test or examination must be prepared to accept the mark. Rewriting tests or examinations, or retroactive reweighting of marks, is **not** permitted.

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

Academic Consideration for Student Absence: Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours
- assessments worth more than 30% of the student's final grade
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office for more information about the relevant documentation. It is strongly recommended that students notify the instructor as soon as possible, ideally before the assessment, when they become aware of an absence. University policy is that students must communicate with their instructors no later than 24 hours after the end of the period covered by the SMC or immediately upon their return from their documented absence. Failure to follow University policy and procedures may result in denial of academic accommodation and a grade of zero.

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 required documentation 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 Western University policy on Consideration for Student Absence, see:

<u>Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs</u>.

For the Student Medical Certificate (SMC), see: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Religious Accommodation: Students should consult the University's list of recognized religious holidays and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar.

Policy Regarding Class Attendance and Engagement: If the instructor deems a student's attendance or engagement in the class to be unsatisfactory, that student may be prohibited from writing the final examination. Examples of unsatisfactory class engagement include frequent absences from an inperson or synchronous online class, lack of assignment submissions, and inadequate use of online course materials. Instructors who intend to make use of this policy will notify the student in advance.

Statement on Mental Health and Support Services: Students under emotional/mental distress should visit http://uwo.ca/health/mental_wellbeing/ for more information and a complete list of resources on how to obtain help.