Course Syllabus
FIR 7721-001
Fixed Income and Derivatives
Fall Semester, 2020
3.0 Credit Hours
(Last updated: 8/10/2020)

Instructor: Al Carrion, Ph.D., CFA
E-mail: mcarrion@memphis.edu
Office: FCBE #429
Course Website: elearn.memphis.edu
Class time: MW 5:30 pm-6:55 pm, FCBE 125 (meetings initially suspended due to COVID-19)
Office Hours: after class or by appointment until further notice

NOTE: This syllabus assumes we will be online through September and convert to hybrid format in October. This plan is subject to change depending on the University’s COVID-19 safety guidelines. While in online format, occasional synchronous Zoom classes will be held during regularly scheduled class time and will be announced in the prior week. Further updates will be provided as the COVID-19 situation evolves.

Course Overview:

This course provides an introduction to both fixed income and derivatives. In the fixed income segment, students will become familiar with various types of bonds, learn how to value and manage their risk, and analyze interest rates. In the derivatives segment, students will study futures, forwards, options, and swaps and learn how to price and hedge them using no-arbitrage pricing. This course is designed to be particularly useful to students planning to take the CFA Level 1 exam and will make use of materials from the CFA Institute.

Pre-Requisites/Co-Requisites:

FIR 3710/7410 or equivalent

Required Texts and Other Materials:

- A financial calculator is recommended but not required. Students may choose any brand and model, but I will use the Texas Instruments BA II Plus to teach. For CFA candidates, I recommend the Texas Instruments BA II Plus (or the “Pro” version). Proficiency performing fixed income and other TVM calculations with a financial calculator is a critical skill for CFA candidates.
- Additional materials to be posted on elearn.

Note: eBook, looseleaf, and rental versions of the textbook are all acceptable options and may be available at a substantially lower price than purchasing the standard bound hardcopy version. Wiley also has an option to buy individual chapters.

**Fogelman College: Learning Outcomes for Your Degree**

This course is designed to help you to meet the overall learning objectives for the BBA or MSBA degree offered by the Fogelman College. You should take the time to become familiar with the overall learning objectives as a student in one of these degree programs.

- [BBA Program Outcomes](#)
- [BBA in Accounting Program Outcomes](#)
- [MBA Program Outcomes](#)
- [IMBA Program Outcomes](#)
- [EMBA Program Outcomes](#)
- [MSBA Program Outcomes](#)
- [MS in Accounting Program Outcomes](#)
- [MA in Economics Program Outcomes](#)
- [PhD Program Outcomes](#)

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**Graded Activities**

Points earned on the assessed activities will be distributed as follows:

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Midterm exam</td>
<td>25%</td>
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<tr>
<td>Final exam</td>
<td>25%</td>
</tr>
<tr>
<td>Project</td>
<td>25%</td>
</tr>
<tr>
<td>Assignments and quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Class participation</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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**Exams**

This class will have a midterm and a final. The exams will cover a mix of conceptual questions and calculations. The midterm exam will cover fixed income, and the final will cover derivatives. The midterm will be delivered online, and the format of the final is TBD.

No makeup exams will be given except for extraordinary circumstances (such as excused absence for travel for a University activity or a documented medical emergency).

**Project**

Students will complete a project in small teams. I will provide several choices for your topic, but all will involve working with financial data and will relate to fixed income securities or derivatives. The project will be a major focus of the second part of the semester and students will present their projects in one of our final class meetings.

**Assignments and Quizzes**

Assignments and quizzes will be combined into one grade. Expect quizzes approximately once per online module. These will be open for three-day windows (but timed once started) at the end of the module. Graded homework assignments will be given occasionally, and ungraded practice problems will be given regularly.
Topics/Tentative Schedule for First Half of Semester

Online Module 1: Introduction to Fixed Income Securities and Markets (8/17 – 8/30)

- Fixed Income Market Sectors
- Fixed Income Security Characteristics

Reading: PPP Chapter 1

Online Module 2: Fixed Income Valuation (8/31 – 9/14)

- Pricing Bonds – Valuation and Market Conventions
- Yields and Yield Spreads
- Interest Rates

Reading: PPP Chapter 3

Online Module 3: Fixed Income Risk and Return/Mortgages (9/15 – 9/27)

- Interest Rate Risk: Duration, Convexity, DV01
- Mortgages

Reading: PPP Chapter 4

Fixed Income Review Session (Wednesday 9/30)

Fixed Income Exam (Available online Thursday 10/1 – Sunday 10/4)
Topics/Tentative Schedule for Second Half of Semester

Introduction to Derivatives

Forwards and Futures

Swaps

Options

Project Presentations (11/9, 11/11)

Derivatives Review Session (Wednesday 11/16)

Final Exam (Thursday 11/19)
Course Policies and Student Resources

E-MAIL

All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account and/or through the eCourseWare mail system. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a “full mailbox” condition, etc.) is the student’s responsibility.

Professor’s Expectations of Students

In general, you should assist the instructor in creating a positive, supportive environment for learning by staying engaged in the course and actively participating in all discussions.

Student's Expectations of the Professor

In my role as your instructor, there are certain things you can expect from me including: well-organized and engaging learning experience, response to emails within two (2) business days, and feedback on all work submitted within 7-10 calendar days.

Attendance and Participation

Regular attendance and class participation are extremely important for success in this course. Attendance may be taken for key classes (presentations, planned discussions, etc.) and will factor into your participation grade. Students are held responsible for all materials, and assignments presented in class, as well as any administrative announcements. If for any reason you must miss a class, you should get any relevant information from your colleagues. You should also regularly communicate with the instructor as part of your overall learning experience and check into the course frequently for announcements (usually on the course home page). You should plan on logging into the course at least three times each week.

Academic Integrity

Plagiarism, cheating and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly, through participation or assistance, are immediately responsible to the instructor of the class in addition to other possible disciplinary sanctions which may be imposed through the regular institutional disciplinary procedures. (https://www.memphis.edu/osa/students/academic-misconduct.php). Note that using a “Solutions Manual” is considered cheating. If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College's Website on Academic Integrity.

Classroom or Online Behavior

All participants in the course should be considerate of the other course participants and treat them (as well as their opinions) with respect. The class will operate under the assumption that any and all feedback offered is positive in nature and that the intentions of the person(s)
providing feedback are strictly honorable. Insensitivity in this area will not be tolerated. If you have any questions about online communication, you should review the Fogelman College's Netiquette website.

Late Assignments

Assignments and projects may be submitted anytime up to and including the date due. If an emergency should arise, it is the student’s responsibility to contact the instructor prior to the deadline to discuss the matter. If your work is submitted late but before I have provided solutions to the class, I reserve the option to deduct up to 20% of the grade value depending upon the circumstances and appropriate communication between the student and the instructor. No late work may be submitted after solutions have been provided.

Extra Credit

There is no extra credit offered in this course. Your final grade will be computed based on your work on the formal/assessed activities previously described in this syllabus.

Inclement Weather

In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather Hotline at 678-0888 as well as TigerText, an emergency alert text messaging service to students, faculty and staff. This optional service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather. Additional information on TigerText.

Syllabus Changes

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

COVID-19 Health and Safety Policy - Masks and Social Distancing

All students, faculty and staff will wear masks in all public spaces, including our classroom (lab) per the COVID-19 policy. The first time a student enters a classroom without wearing a face covering, the student will be asked to leave the class until they return with a covering. Further violations will be referred to the Office of Student Accountability. Students who repeatedly or flagrantly violate these community expectations may be referred for discipline under the Student Code and, if appropriate, immediately removed from campus by the Dean of Students.

Student Health

Students who are experiencing symptoms such as sneezing, coughing or a higher than normal temperature should inform me by email so they can be excused from class and should stay
home. Students should contact their health care provider or the Student Health Center at https://www.memphis.edu/health/.

Students who have a positive COVID-19 test should contact the Dean of Students at deanofstudents@memphis.edu.

**Student Accommodations**

If and when we return to class, students seeking to remain remote for health or other serious reasons should discuss their options with me. Students with accessibility issues or with other learning accommodation needs due to a disability should contact Disability Resources for Students (DRS) to submit an official request for course accommodations. Contact DRS at 901.678.2880 or at drs@memphis.edu. (https://www.memphis.edu/drs/index.php)

**Student Resources**

Please access the [FCBE Student Services](https://www.memphis.edu/drs/index.php) page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance

Students who need additional resources can visit the Dean of Students Office website at [https://www.memphis.edu/deanofstudents/crisis/index.php](https://www.memphis.edu/deanofstudents/crisis/index.php).