

## FIN 3310 Business Finance (CRN 20889)

### Spring 2019 Course Syllabus

<b>Class Hours:</b>	Tuesday/Thursday 9:00 – 10:20 am (BUSN 321)
<b>Instructor:</b>	Chia-Chun (Cici) Chiang, Ph.D., FSA
<b>Office:</b>	BUSN 247
<b>E-mail:</b>	<a href="mailto:cchiang@utep.edu">cchiang@utep.edu</a>
<b>E-mail Policy:</b>	<p><i>For faster replies, please use the prefix “FIN3310_20889” in the subject line of all emails.</i></p> <p>It is the policy of the finance department that all e-mails sent to professors or teaching assistants be of a professional nature and format. A formal greeting and salutation are required. Proper grammar, spelling, and format are required. You must clearly state the problem or question that will be addressed. You must identify the class, section, time, and location where the class meets. We reserve the right to not reply to any e-mail that does not meet these requirements and is not of a professional nature.</p>
<b>Office Hours:</b>	Tuesday/Thursday 10:30 - 11:30 am and by appointment
<b>Required Text:</b>	Broverman, 7th Ed., Mathematics of Investment and Credit, ACTEX Publications. ISBN 978-1-63588-222-3 <a href="https://www.actexamdriver.com/OrderSelection.aspx">https://www.actexamdriver.com/OrderSelection.aspx</a>
<b>Prerequisites:</b>	ACCT 2301 with "C" or better and (1) MATH 1320 with "C" or better or (2) MATH 1409 with "C" or better or (3) MATH 1410 with "C" or better or (4) MATH 1508 with "C" or better. <b>You need to have some familiarity with calculus, probability, and linear algebra.</b>
<b>Calculator:</b>	Only calculators that are approved by the Society of Actuaries for use on Exam FM will be allowed to be used on exams in this class. I recommend Texas Instruments BA II Plus. I will use Texas Instruments BA II Plus in class and explain how to work various problems with it. Make sure that you bring your calculator to every class. Other calculators are approved: BA-35, BA II Plus Professional, TI-30Xa, TI-30X II (IIS solar or IIB battery), TI-30XS MultiView (or XB battery).
<b>Blackboard:</b>	I will use Blackboard to post important announcements and upload course materials. I expect you to check Blackboard daily. Make sure you receive Blackboard announcement emails in your inbox.
<b>Class E-Mail:</b>	Each student is required to have the e-mail account that is associated with the <i>Blackboard system</i> up to date. Any class requirements sent in the e-mail messages through the Blackboard are considered delivered. You should check that e-mail account regularly.

## Course Description

This course provides an introduction to actuarial cash flow models. Simple, compound, rate of discount, and effective interest functions are analyzed. These functions are used in the calculation of present value and future values of various types of annuities, loans, and more complex cash flow streams.

## Course Objectives

- Understand and be able to perform calculations relating to the present value, current value, and accumulated value.
- Describe different annuities and their cash flows.
- Understand the time value of money among different types of annuities as well as more complex cash flow streams.
- Understand key concepts concerning loans and how to perform related calculations.
- Teach actuarial cash flow models, which constitute the theoretical foundation of actuarial science.
- Develop analytical problem-solving skills to solve complex problems from first principles rather than memorization.

## Class procedures

1. The structure of this class makes your individual study and preparation outside class extremely important. Reading the assigned sections and having some familiarity with them before class will **greatly** assist your understanding of the lecture. After the lecture, you should study your notes and work relevant problems from the end of the section.
2. Practice: The best way to prepare for an actuarial exam is to practice, practice, and then practice some more. I strongly recommend that you practice problems DAILY. If you find that you struggle with certain problems the first time you work them, be sure to work them again AND work other problems that are similar.

## Grade Components

8 Assignments	<b>14 points</b>
2 Excel Assignments	<b>2 points</b>
Exam 1	<b>21 points</b>
Exam 2	<b>21 points</b>
Exam 3	<b>21 points</b>
Exam 4	<b>21 points</b>
Final Exam (Optional, Ch 1, 2, 3, and 9.1)	<b>21 points</b>
Total	<b>100 points</b>

**Exams:** All exams will be closed-book, and no formula sheet is allowed (and on all SOA exams as well!). Students who miss an exam without a valid reason will receive a zero on that exam. Make-up exams will be allowed only with pre-approval of the instructor or with an acceptable, documented reason. Acceptable reasons for makeup exams include severe illness, family emergencies or other unavoidable events including dangerous weather conditions and car accidents. Exam format for makeup exams may be different from the original exam.

There will be a final exam offered during the scheduled final exam period. Those students who are happy with their grade are not required to take the final. The final will replace the lowest exam score obtained on the four exams. The final exam must be taken at the designated time. The only exceptions that will be made are for those students who have three or more exams scheduled on the same day, or two scheduled at the same time.

### *Assignments*

The homework assignments aim to help you understand the theories covered in the class and to prepare you for the exams. The assignments will be posted on Blackboard. You are allowed and encouraged to collaborate on these problems, although every student must submit their homework assignments through Blackboard. **Late homework penalty is 25% per day.** Please complete your assignments well in advance.

### **Grade Scale**

A	B	C	D	F
90-100+	80-89	70-79	60-69	0-59

### **Students with Disabilities**

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass).

### **Scholastic Integrity**

The University of Texas at El Paso prides itself on its standards of academic excellence. In all matters of intellectual pursuit, UTEP faculty and students must strive to achieve excellence based on the quality of work produced by the individual. In the classroom and in all other academic activities, students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP. It is imperative, therefore, that the members of this academic community understand the

regulations pertaining to academic integrity and that all faculty members insist on adherence to these standards.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP), and available in the Office of the Dean of Students, and the homepage of The Dean of Students (DOS) at [www.utep.edu](http://www.utep.edu), may result in sanctions ranging from disciplinary probation, to failing grade on the work in question, to a failing grade in the course, to suspension or dismissal, among others.

**Tentative Schedule and Outline (I reserve the right to revise it)**

Week	Date	Topic
1	1/22	Introduction and Chapter 1 Section 1
	1/24	Chapter 1 Section 1, 2
2	1/29	Chapter 1 Section 4
	1/31	Unknown Time, Interest rate, and Unknown Payment
3	2/5	Chapter 1 Section 3
	2/7	Chapter 1 Section 5
4	2/12	Review 1
	2/14	<b>Exam 1</b>
5	2/19	Chapter 1 Section 6
	2/21	Chapter 2 Section 1.1
6	2/26	Chapter 2 Section 1.2
	2/28	Unknown Time, Unknown Interest rate and Unknown Payment (2)
7	3/5	Annuity Due, Perpetuities, and Deferred Annuities
	3/7	Review 2
8	<b>3/12</b>	<b>Exam 2</b>
	3/14	Chapter 2 Section 2.1
9	3/19	Spring Break
	3/21	Spring Break
10	3/26	Chapter 2 Section 2.2, 2.3
	3/28	Chapter 2 Section 3.1
11	4/2	Chapter 2 Section 3.2
	4/4	Chapter 2 Section 3.2
12	4/9	Review 3
	4/11	<b>Exam 3</b>
13	4/16	Chapter 3 Section 1.1
	4/18	Chapter 3 Section 1.2, 1.3
14	4/23	Chapter 3 Section 1.4, 1.5
	4/25	Chapter 3 Section 1.6, Chapter 3 Section 2
15	4/30	Chapter 2 Section 3.1.2, Chapter 9, Section 1
	5/2	Risk and Return
16	5/7	Review 4
	<b>5/9</b>	<b>Exam 4</b>
17	<b>5/14</b>	<b>Final Exam 10:00 am – 12:45 pm (optional)</b>

## Expected readings Spring 2019

The Society of Actuaries recommends the following sections of the Broverman book and three study notes (readings) for the April 2019 exam.

**Broverman, S.A.**, Mathematics of Investment and Credit (Seventh Edition), 2017, ACTEX Publications, ISBN 978-1-63588-221-6

[Candidates may also use the Sixth Edition of Mathematics of Investment and Credit. The same chapter references apply.]

Chapter 1 (excluding 1.2.1 and 1.8)

Chapter 2 (excluding 2.4.2, 2.4.3 and 2.4.5)

Chapter 3 (excluding 3.2.1, 3.2.2, 3.3, and 3.4)

Chapter 4

Chapter 5 (excluding the investment year method portion of 5.3.1, and excluding all of 5.3.2, 5.3.3 and 5.3.4)

Chapter 6 (excluding 6.2 and 6.4)

Chapter 7 (excluding 7.1.3, 7.1.6 and 7.3)

Chapter 9 (9.1 only)

At various places in the sections of this text that are listed above there are statements indicating that more information is available in sections that are not listed above.

Candidates are not responsible for this additional information.