

## **FIN-4304-110, INVESTMENTS**

**CRN 10031**

Spring 2019

Texas A&M University-Central Texas

### **INSTRUCTOR AND CONTACT INFORMATION**

**Instructor: Marty Hanby, Assistant Professor of Finance**

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**Phone: 254-519-5772**

**Email: [m.hanby@tamuct.edu](mailto:m.hanby@tamuct.edu)**

**Office Hours: See course homepage in Canvas.**

**Course Materials and Textbook:** Bodie, Kane and Marcus, Essentials of Investments, eleventh edition, Irwin McGraw Hill.

You will need a financial calculator. I will teach the class using the TI BAII Plus Professional financial calculator. This is because I can show you examples in class using these calculators. If you prefer to use a HP business calculator or a graphics calculator that has financial functions. that is fine but do not expect me to tutor you on how to use your own calculator. A graphics calculator will be useful for all exams and if you prefer to use formulas.

### **Mode of instruction and course access:**

This course is a hybrid with online instruction via Canvas and face-to-face exams. In addition, supplemental materials will be made available online via the A&M-Central Texas Canvas Learning Management System [<https://tamuct.instructure.com>].

### **Student-instructor interaction:**

I highly recommend that you take the time to come to my office hours, this will be beneficial to both of us. It gives me the opportunity to understand both your strengths and weaknesses, students that take the time to get to know me usually do much better in my class. My preferred communication method is via email, I check email regularly during the week but only a couple of times a day on weekends. If my office hours don't work for you, please email me and we will schedule a time that works for both of us.

### **911 Cellular: Emergency Warning System for Texas A&M University-Central Texas**

911Cellular is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in 911Cellular through their myCT email account.

In an effort to enhance personal safety on the Texas A&M University – Central Texas (TAMUCT) campus, the TAMUCT Police Department has introduced Warrior Shield by 911 Cellular. [Warrior Shield](https://www.tamuct.edu/police/911cellular.html) [<https://www.tamuct.edu/police/911cellular.html>] can be downloaded and installed on your mobile device from Google Play or Apple Store.

Connect at [911Cellular](https://portal.publicsafetycloud.net/Texas-AM-Central/alert-) [<https://portal.publicsafetycloud.net/Texas-AM-Central/alert->

management] to change where you receive your alerts or to opt out. By staying enrolled in 911Cellular, university officials can quickly pass on safety-related information, regardless of your location.

## **COURSE INFORMATION**

**Course Overview and description:** The material covered is about two-thirds quantitative and the rest institutional and descriptive. Fluency with college algebra, statistics, and some calculus is required.

**Course Objective:** In this class, students will learn analytical tools for making investment decisions. These tools facilitate portfolio selection and the relating of risk with return. The application of these tools leads to an understanding of stocks, bonds, options and mutual funds.

**Course Prerequisites:** FIN 3301

### **Student Learning Outcomes and Competency Goals:**

#### **1. INVESTMENTS: BACKGROUND AND ISSUES**

Define an investment.

Distinguish between real assets and financial assets.

Explain the economic functions of financial markets and how various securities are related to the governance of the corporation.

Describe the major steps in the construction of an investment portfolio.

Identify different types of financial markets and the major participants in each of those markets.

Explain the causes and consequences of the financial crisis of 2008.

#### **2. INVESTMENTS: BACKGROUND AND ISSUES**

Distinguish among the major assets that trade in money markets and in capital markets.

Describe the construction of stock market indexes.

Calculate the profit or loss on investments in options and futures contracts.

#### **3. SECURITIES MARKETS**

Describe how firms issue securities to the public.

Identify various types of orders investors can submit to their brokers.

Describe trading practices in dealer markets, specialist-directed stock exchanges, and electronic communication networks.

Compare the mechanics and investment implications of buying on margin and short-selling

#### **4. MUTUAL FUNDS AND OTHER INVESTMENT COMPANIES**

Cite advantages and disadvantages of investing with an investment company rather than buying securities directly.

Contrast open-end mutual funds with closed-end funds, unit investment trusts, hedge funds, and exchange-traded funds.

Define net asset value and measure the rate of return on a mutual fund.

Classify mutual funds according to investment style.

Demonstrate the impact of expenses and turnover on mutual fund investment performance.

## **5. RISK AND RETURN**

Cite advantages and disadvantages of investing with an investment company rather than buying securities directly.

Contrast open-end mutual funds with closed-end funds, unit investment trusts, hedge funds, and exchange-traded funds.

Define net asset value and measure the rate of return on a mutual fund.

Classify mutual funds according to investment style.

Demonstrate the impact of expenses and turnover on mutual fund investment performance.

## **6. EFFICIENT DIVERSIFICATION**

Show how covariance and correlation affect the power of diversification to reduce portfolio risk.

Calculate mean, variance, and covariance using either historical data or scenario analysis.

Construct efficient portfolios and use the Sharpe ratio to evaluate portfolio efficiency.

Calculate the composition of the optimal risky portfolio.

Use index models to analyze the risk and return characteristics of securities and portfolios.

Understand the effect of investment horizon on portfolio risk.

## **7. CAPITAL ASSET PRICING AND ARBITRAGE PRICING THEORY**

Use the implications of capital market theory to estimate security risk premiums.

Construct and use the security market line.

Specify and use a multifactor security market line.

Take advantage of an arbitrage opportunity with a portfolio that includes mispriced securities.

Use arbitrage pricing theory with more than one factor to identify mispriced securities.

## **8. THE EFFICIENT MARKET HYPOTHESIS**

Demonstrate why security price changes should be essentially unpredictable in an efficient market.

Cite evidence that supports and contradicts the efficient market hypothesis.

Provide interpretations of various stock market “anomalies.”

Formulate investment strategies that make sense in informationally efficient markets.

## **10. BOND PRICES AND YIELDS**

Explain the general terms of a bond contract and how bond prices are quoted in the financial press.

Compute a bond's price given its yield to maturity, and compute its yield to maturity given its price.

Calculate how bond prices will change over time for a given interest rate projection.

Describe call, convertibility, and sinking fund provisions, and analyze how these provisions affect a bond's price and yield to maturity.

Identify the determinants of bond safety and rating and how credit risk is reflected in bond yields and the prices of credit default swaps.

Calculate several measures of bond return, and demonstrate how these measures may be affected by taxes.

Analyze the factors likely to affect the shape of the yield curve at any time, and impute forward rates from the yield curve.

## **11. MANAGING BOND PORTFOLIOS**

Analyze the features of a bond that affect the sensitivity of its price to interest rates.

Compute the duration of bonds and use duration to measure interest rate sensitivity.

Show how convexity affects the response of bond prices to changes in interest rates.

Formulate fixed-income immunization strategies for various investment horizons.

Analyze the choices to be made in an actively managed bond portfolio.

## **13. EQUITY VALUATION**

Use financial statements and market information to estimate firm value.

Calculate the intrinsic value of a firm using either a constant-growth or multistage dividend discount model.

Assess the growth prospects of a firm and relate growth opportunities to the P/E ratio.

Value a firm using free cash flow models.

## **15. OPTIONS MARKETS**

Calculate the profit to various option positions as a function of ultimate security prices.

Formulate option strategies to modify portfolio risk-return attributes.

Identify embedded options in various securities and determine how option characteristics affect the prices of those securities.

## **16. OPTION VALUATION**

Identify the features of an option that affect its market value.

Compute an option value in two-scenario and binomial models of the economy.

Compute the Black-Scholes value and implied volatility of an option.

Compute the proper relationship between call and put prices.

Compute the hedge ratio of an option and use that ratio to manage risk.

## 17. FUTURES MARKETS

- Identify the features of an option that affect its market value.
- Compute an option value in two-scenario and binomial models of the economy.
- Compute the Black-Scholes value and implied volatility of an option.
- Compute the proper relationship between call and put prices.
- Compute the hedge ratio of an option and use that ratio to manage risk.

## COURSE REQUIREMENTS

Homework (100 points) - There will be end of chapter homework assignments throughout the semester. **All homework will be submitted via the links provided in the Assignments section of Canvas.** All homework assignments combined will be worth 100 points. I will not accept late homework. Let me repeat. I WILL NOT ACCEPT LATE HOMEWORK!

Exams (300 points) - You will have 3 exams in this class. Each exam is worth 100 points. All exams will cover material from the chapters that were covered after the previous exam. This means that the exams are not comprehensive...technically. However; since much of the material builds on itself you must understand earlier chapters to be able to show your understanding of later chapters. **The optional final exam is comprehensive and if you elect to take the final it will replace your lowest exam grade. There is a risk to taking the final, your grade can improve or decline depending on your test score. Also, if you elect to take the final and do not show up, you will receive a grade of 0.**

### Grading:

> 90%	A
80 - 89.99%	B
70 - 79.99%	C
60 - 69.99%	D
< 60%	F

NOTE: Requests for Incomplete Grades: Incompletes will only be given in emergency or other extreme circumstances. Any request for an incomplete grade in this course must be approved by the professor prior to the last week of classes. Requests should be submitted in written form. include a detailed explanation and documentation. and must include an address and/or telephone number where you may be contacted throughout the following semester. There is a university requirement that a substantial portion of the course work must have been completed by the student prior to receiving and incomplete. Also. students will be required to enter into a contract with the professor to finish the course within some set time frame to be determined by the professor. Students will no longer be able to get an IC after doing 5% of the class and then get an extra semester to complete their work.

### Posting of Grades

Grades will be posted in Canvas, in most cases they will be posted just prior to the next class after an exam.

## TENTATIVE COURSE OUTLINE AND CALENDAR

<b>Date</b>	<b>Topic</b>	<b>Chapter</b>	<b>Assignment and Due Date</b>
1/14	Syllabus Review		
1/16	Investments: Background and Issues	1	
1/21	<b>Martin Luther King Day</b>		
1/23	Asset Classes and Financial Instruments	2	Ch 2 - 15, 17, 19, 20, 23
1/28	Security Markets	2 & 3	
1/30	Security Markets	3	Ch 3- 12, 16, 18, 19, 20
2/4	Mutual Funds and Other Investment Companies	4	Ch 2 & 3 due
2/6	Risk and Return	4 & 5	Ch 4 - 12, 22, 23, 24
2/11	Risk and Return	5	Ch 5 - 7, 12-15
2/13	Review		Ch 4 & 5 due
2/18	<b>Exam 1</b>		9:30 am location TBD
2/20	Efficient Diversification	6	Ch 6 - 8-12, 21
2/25	CAPM	7	Ch 7 - 11, 12, 25, 26, 32
2/27	CAPM	7	
3/4	Efficient Capital Markets and Ethics	8	Ch 8 - 6, 7, 8, 12, 13
3/6	Bond Prices and Yields	10	Ch 10 - 17, 22, 23, 32, 40
3/11	<b>Spring Break</b>		
3/13	<b>Spring Break</b>		
3/18	Bond Prices and Yields	10	Ch 6, 7 & 8 due
3/20	Bond Prices and Yields	10	
3/25	Managing Bond Portfolios	11	Ch 11- 8, 10, 11, 19
3/27	Managing Bond Portfolios	11	
4/1	Review		Ch 10 & 11 due
4/3	<b>Exam 2</b>		9:30 am location TBD
4/8	Equity Valuation	13	Ch 13 - 18, 19, 20, 22, 23
4/10	Equity Valuation	13	
4/15	Option Markets	15	Ch 15 - 23, 24, 25, 27
4/17	Option Markets	15	
4/22	Option Valuation	16	Chapter 13 & 15 due
4/24	Option Valuation	16	Ch 16 - 8, 9
4/29	Review		Chapter 16 due
5/1	<b>Exam 3</b>		9:30 am location TBD
5/8	<b>Optional Comprehensive Final</b>		

### **Important University Dates:**

January 14	Classes Begin for Spring Semester
January 16	Deadline for Add, Drop, and Late Registration for 16- and First 8-Week Classes
January 21	Martin L. King Jr. Day (University Closed)
January 22	Deadline to Drop First 8-Week Classes with No Record
January 30	Deadline to Drop 16-Week Classes with No Record
February 22	Student End of Course Survey Opens (First 8-Week Classes)
February 22	Deadline to Drop First 8-Week Classes with a Quit (Q) or Withdraw (W)
March 1	Deadline for Graduation Application for Spring Ceremony Participation
March 1	Deadline for Teacher Education and Professional Certification Applications (i.e. Principal, Reading Specialist, etc.)
March 8	Classes End for First 8-Week Session
March 8	Deadline for Spring Admissions Applications
March 10	Student End of Course Survey Closes (First 8-Week Classes)
March 11	Spring Break – No Class (University Open)
March 11	Deadline for Faculty Submission of First 8-Week Final Class Grades (due by 3pm)
March 13	Spring Break – No Class (University Open)
March 14	Spring Break – No Class (University Open)
March 15	Deadline for Tuition and Fee Payments (Second 8-Week Classes)
March 15	Deadline for Clinical Teaching Applications
March 15	Spring Break – No Class (University Open)
March 18	Add, Drop, and Late Registration Begins for Second 8-Week Classes. \$25 fee assessed for late registrants.
March 18	Classes Begin for Second 8-Week Session
March 20	Deadline for Add, Drop, and Late Registration for Second 8-Week Classes
March 25	Deadline to Drop Second 8-Week Classes with No Record
April 1	Deadline for GRE/GMAT Scores to Office of Graduate Studies
April 5	Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)
April 12	Deadline for Final Committee-Edited Theses with Committee Approval Signatures to Office of Graduate Studies for Spring Semester
April 26	Student End of Course Survey Opens (16- and Second 8-Week Classes)
April 26	Deadline to Drop Second 8-Week Classes with a Quit (Q) or Withdraw (W)
May 10	Deadline for Applications for \$1,000 Tuition Rebate for Spring Graduation (5pm)

### **TECHNOLOGY REQUIREMENTS AND SUPPORT**

#### **Technology Requirements**

This course will use the A&M-Central Texas Instructure Canvas learning management system. Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

### **Canvas Support**

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

### **Other Technology Support**

For log-in problems, students should contact Help Desk Central.

24 hours a day, 7 days a week:

Email: [helpdesk@tamu.edu](mailto:helpdesk@tamu.edu)

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [http://hdc.tamu.edu]

*Please let the support technician know you are an A&M-Central Texas student.*

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## **UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES**

### **Drop Policy.**

If you discover that you need to drop this class, you must complete a [Drop Request Form](https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf) [https://www.tamuct.edu/registrar/docs/Drop\_Request\_Form.pdf].

Professors cannot drop students; this is always the responsibility of the student. The Registrar’s Office will provide a deadline on the Academic Calendar for which the form must be completed, signed and returned. Once you return the signed form to the Registrar’s Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar’s Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

### **Academic Integrity.**

Texas A&M University - Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student’s academic performance and includes, but is not limited to, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student’s work, collusion, and the abuse of resource materials. All academic misconduct concerns will be reported to the university’s Office of Student Conduct. Ignorance of the university’s standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.



For more [information regarding the Student Conduct process](https://tamuct.campuslabs.com/engage/organization/tamuct-student-conduct-panel),  
[https://tamuct.campuslabs.com/engage/organization/tamuct-student-conduct-panel].  
If you know of potential honor violations by other students, you may [submit a report](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0),  
[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout\_id=0].

### **Academic Accommodations.**

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Office of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the university's programs, services and activities. If you believe you have a disability requiring reasonable accommodations please contact the Office of Access and Inclusion at (254) 519-5797. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion](https://www.tamuct.edu/student-affairs/access-inclusion.html) web page  
[https://www.tamuct.edu/student-affairs/access-inclusion.html].

### **Important information for Pregnant and/or Parenting Students.**

Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit the [Student Affairs](https://www.tamuct.edu/student-affairs/index.html) web page [https://www.tamuct.edu/student-affairs/index.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines online](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf), please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.

### **Tutoring.**

Tutoring is available to all A&M-Central Texas students, both on-campus and online. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or have any other question, contact Academic Support Programs at (254) 519-5796, or by emailing Dr. DeEadra Albert-Green at [deeadra.albertgreen@tamuct.edu](mailto:deeadra.albertgreen@tamuct.edu).

Chat live with a tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive FREE online tutoring and writing support. This tool provides tutoring in over 40 subject areas. Access Tutor.com through Canvas.

### **University Writing Center.**

Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University–Central Texas (TAMUCT) is a free workspace open to all TAMUCT students from 10:00 a.m.-5:00 p.m. Monday thru Thursday with satellite hours in the University Library Monday thru Thursday from 6:00-9:00 p.m. This semester, the UWC is also offering online only hours from 12:00-3:00 p.m. on Saturdays.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available) or by making an appointment via [WCOonline](#). In addition, you can email Dr. Bruce Bowles Jr. at [bruce.bowles@tamuct.edu](mailto:bruce.bowles@tamuct.edu) if you have any questions about the UWC and/or need any assistance with scheduling.

### **University Library.**

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 85,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student

lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](http://tamuct.libguides.com/index) [http://tamuct.libguides.com/index].

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## **OPTIONAL POLICY STATEMENTS:**

### **A Note about Sexual Violence at A&M-Central Texas**

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the [Title IX webpage](https://www.tamuct.edu/departments/compliance/titleix.php) [https://www.tamuct.edu/departments/compliance/titleix.php].

## **INSTRUCTOR POLICIES.**

**I do not accept late assignments and any calculator with communication features is strictly prohibited. Electronic devices are permitted in class for note taking purposes only.**

### **Copyright Notice.**

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.