

The University of Texas El Paso
The Woody L. Hunt College of Business
Department of Economics and Finance

FIN 4315 – Portfolio Analysis
Syllabus
Fall 2024

Instructor: Professor Diego Leal (dllealgonza@utep.edu)
Office: COBA 229

Teacher Assistant: TBD

Always CC the class TA in any email communication with your professor

Proper grammar, spelling, and format are required. You must clearly state the problem or question that will be addressed.

Section 1

Class Time: Monday Wednesday
9:00am – 10:20 pm
Classroom: COBA 301

Section 2

Class Time: Monday Wednesday
12:00 pm - 1:20 pm
Classroom: COBA 302

Office Hours: Monday and Wednesday from 8:00am to 9:00am and from 10:20pm to 12:00pm.

Course Description: This course is based on modern portfolio analysis techniques. It utilizes mean-variance analysis to determine efficient portfolios and presents techniques for calculating efficient frontiers. It also utilizes single- and multi-index models to calculate the correlation structure of security returns and simplify the portfolio selection process. It further examines models of equilibrium in capital markets, international diversification and other portfolio selection models, such as safety-first.






Learning objectives: In this course you will learn how to:

- calculate the expected return and risk of a financial asset,
- calculate the expected return and risk of a combination of financial assets,
- optimally allocate an investor's wealth into financial assets to maximize the risk-return trade-off,
- use linear regression models to compute the expected returns and risks of individual financial assets and combinations of financial assets,
- price financial options using the binomial pricing model and the Black-Scholes Equation,
- assemble a portfolio of fixed income securities.

Course Prerequisites: FIN 3315 or departmental approval.

EDGE ADVANTAGES

This course is designed to equip students with essential Edge Advantages that contribute to their professional and personal development. Through the completion of course requirements and assignments, such as team projects, presentations, and essays, students will develop the following Edge Advantages:

	Problem-Solving	Assignments will challenge students to identify and address complex issues using innovative and analytical approaches.
	Communication	Class discussions and written assignments will improve students' skills in articulating ideas clearly and persuasively in both oral and written forms.
	Social Responsibility	Through community engagement opportunities and course content that encourages ethical considerations, students will foster a sense of responsibility towards their community and society at large.
	Confidence	By actively participating and successfully completing assignments, students will build self-assurance in their abilities to tackle academic and real-world challenges.
	Critical Thinking	The course's emphasis on analysis and synthesis of information will strengthen students' abilities to think critically and make informed decisions.

Required Course Material

- A standard scientific calculator. I use the Casio fx-300ESPLUS.
- A financial calculator such as the Texas Instruments BA II Plus. iPhone/Smartphone apps or graphing calculators such as TI-83, TI-86, TI-89, TI- 92, HP-48 are not permitted.¹
- A name tent. You must have a name tent in front of you during class. This is to help me learn your names and to monitor participation and attendance.

While the course will follow the structure in the books above, additional supplemental material may be provided on Blackboard whenever convenient. Lecture slides for each chapter will be posted right before we begin each chapter. Exam questions will be closely inspired by the examples

¹ You will need to teach yourselves how to use your own calculator (see Appendix D, “Financial Calculator Tips”).

solved in class and shown in the slides, and in pool of specimen questions posted on Blackboard. This list of example questions with the respective answers will be available on Blackboard for study and practice.

Recommended Textbooks

Bodie, Kane, and Marcus, “Essentials of Investments” 12th Edition. McGraw-Hill.

Edwin J. Elton, Martin J. Gruber, Stephen J. Brown and William N. Goetzmann, Modern Portfolio Theory and Investment Analysis, 9th edition, Wiley, 2014.

Expectations:

- Students are expected to attend all lectures.
- Students are expected submit all assignments in a timely fashion. Please check the due dates and times on Blackboard and ensure you begin your assignments early enough to submit them on time. Late work will be penalized in accordance with course policies.
- Students are expected to take the exams in person, during the time they are scheduled, and in the section to which the student is assigned. If the student is unable to meet this requirement for an exam, the student should contact me as soon as possible.
- Students are expected to solve practice problems posted on Blackboard.

Grade Scale:

The final course letter grade will be exclusively determined by the following table:

A	$x \geq 90\%$
B	$90\% > x \geq 80\%$
C	$80\% > x \geq 70\%$
D	$70\% > x \geq 60\%$
F	$60\% > x$

x = final numerical course grade.

Exam 1	15%
Exam 2	15%
Final exam	15%
Projects (3 projects in total)	20%
Weekly assignments and in-class worksheets	20%
Attendance and in class participation	15%

Exams:

- There will be two tests during the semester and one cumulative final exam. The first two tests will be worth 15% of your grade and the final exam will be worth 15% of your grade.

- All exams will be completed in the classroom, during the date and time listed in the calendar below.
- These exams will evaluate your knowledge on the material that we cover in lectures, discussions, homework, and quizzes.
- A formula sheet will be provided by the instructor for each of the three exams.
- Students with a university approved excuse (i.e. religious holiday, documented illness/accident, etc.) for missing an exam will be allowed to take the exam at an alternate time. Students with a foreseeable excuse should notify the instructor as soon as possible, and NOT after the scheduled exam time. Students missing an exam without a documented valid excuse will receive a zero on that exam.
- Students in need of the CASS (Center for Accommodations and Support Service) must take it upon themselves to schedule exam times with instructor approval. It is preferable to take the exam at the same time as the class. It is not the instructor's responsibility to schedule CASS exams.

Projects:

You will be required to complete 3 excel based projects. They will be detailed in class. Video links will be available as a guide to completing the projects. A written report is required for each project; 70% of the grade will be based on the Excel file, and 30% will be based on the written report. A specific report format is required and is available on the Blackboard website for the class. All reports must be submitted as Word documents. If you submit a report that is not in Word format, you will lose 10 points from the report. Word document format is a requirement of the project.

Effective writing skills are a very important part of the business environment. Grading of the written reports will be based on content, depth of analysis, spelling, grammar, and format. Proofread your papers!! Use the UTEP writing center to support and improve your skills. Excel files and reports' due dates will be listed on the course calendar in Blackboard. No late reports will be accepted. No emailed reports will be accepted.

Homework and in-class worksheets:

- Homework assignments and in-class worksheets are worth 20% of your grade.
- You will have to submit an assignment every Sunday by midnight.
- **No late submissions are allowed. No extensions are allowed.**
- The final homework grade will be an average of the points earned through homework assignments.
- At the end of each section, I will have you solve a few problems in class, with open books. You will have to turn in the solutions to these problems to receive credit for the 'in-class worksheet' portion of the syllabus.

Attendance:

- Attendance and participation is required and constitutes 15% of your grade.

- Students are expected, and highly encouraged to attend all class sessions. This is the most efficient way to do well in this class, as some material presented in class may not be covered in the text or online postings.

COURSE SCHEDULE **

****Tentative and subject to change throughout the semester.**

		Content	Remarks
Week 1	26-Aug-24	- Introduction to course - Mod1: Opportunity Sets	
Week 2	2-Sep-24	- Mod1App: Statistics Review	No class September 2nd (Labor Day)
Week 3	9-Sep-24	- Mod1App: Statistics Review	Worksheet #1
Week 4	16-Sep-24	- Mod 2: Efficient Portfolios, CAL, and optimal portfolios	Worksheet #2
Week 5	23-Sep-24	- Mod 3: Single Index Model	Worksheet #3
Week 6	30-Sep-24	Exam 1: Monday September 30	
Week 7	7-Oct-24	- Mod 4: Multiindex Model	Worksheet #4
Week 8	14-Oct-24	- Mod 5: Optimal Port. Tech.	No class Wednesday. Professor goes to FMA conference.
Week 9	21-Oct-24	- Mod 5: Optimal Port. Tech.	Worksheet #5
Week 10	28-Oct-24	Exam 2: Monday October 28	
Week 11	4-Nov-24	Mod 6: Managing Bond Portfolios	Worksheet #6
Week 12	11-Nov-24	Mod 7: Performance Analysis	Worksheet #7
Week 13	18-Nov-24	Mod 8: Financial Options	Worksheet #8
Week 14	25-Nov-24	Mod 8: Financial Options	Worksheet #9
Week 15	2-Dec-24	Review	- December 5 last day of classes

Final exam dates:

Section 1: Wednesday, December 11th from 10:00 am to 12:45 pm

Section 2: Friday, December 13th from 1:00 pm to 3:45 pm

Final exam dates are set by the Registrar's Office and can be found in [this link](#).

COURSE COMMUNICATION: How we will stay in contact with each other

Here are the ways we can keep the communication channels open:

- Office Hours: I will have office hours for your questions and comments about the course. My office hours are in-person, however, you can request a virtual meeting and I will send you a Zoom link. Please see the days and times at the top of this syllabus.
- Email: UTEP e-mail is the best way to contact me. I will make every attempt to respond to your e-mail within 24 hours of receipt. When e-mailing me, be sure to email from your UTEP student e-mail account and please put the course number in the subject line. In the body of your e-mail, clearly state your question. At the end of your e-mail, be sure to put your first and last name, and your university identification number.
- Announcements: Check the Blackboard announcements frequently for any updates, deadlines, or other important messages.

ILLNESS PRECAUTIONS

Please stay home if you have symptoms of a communicable illness. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations.

EXCUSED ABSENCES AND/OR COURSE DROP POLICY

According to UTEP Catalog, "At the discretion of the instructor, a student can be dropped from a course because of excessive absences or lack of effort. A grade of "W" will be assigned before the course drop deadline and a grade of "F" after the course drop deadline." See Policies and Regulations in the UTEP Undergraduate Catalog for a list of excuse absences. Therefore, if I find that, due to non-performance in the course, you are at risk of failing, I will drop you from the course. I will provide 24 hours advance notice via email.

ACCOMMODATIONS POLICY

The University is committed to providing reasonable accommodations to students with documented disabilities. Students who become pregnant may also request reasonable accommodations, in accordance with state and federal laws and regulations and University policy. Accommodations that constitute undue hardship are not reasonable. To make a request, please register with the UTEP Center for Accommodations and Support Services (CASS). Contact CASS at 915-747-5148, email them at cass@utep.edu, or apply for accommodations online via the CASS portal.

SCHOLASTIC INTEGRITY

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and

collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the [Office of Student Conduct and Conflict Resolution \(OSCCR\)](#) for possible disciplinary action. To learn more, please visit [HOOP: Student Conduct and Discipline](#).

GUIDANCE ON ARTIFICIAL INTELLIGENCE

Use of AI technologies or automated tools, particularly generative AI such as ChatGPT or DALL-E, is ***only allowed with proper attribution given for its use.***

Students must properly cite and give full credit to the program used upon submission of every relevant assignment. For example, text generated using ChatGPT must be cited:

Chat-GPT(version). Date of query (year/month/day). "Text of your query."
Generated using OpenAI. <https://chat.openai.com/>

A short paragraph describing how the tool(s) was/were used for the assignment must be included.

PLAGIARISM DETECTING SOFTWARE

Some of your course work and assessments may submitted to SafeAssign, a plagiarism detecting software. SafeAssign is used review assignment submissions for originality and will help you learn how to properly attribute sources rather than paraphrase.

***COURSE RESOURCES:** Where you can go for assistance

UTEP provides a variety of student services and support. Please refer to the QR code below for a listing of campus resources or visit https://www.utep.edu/advising/student_resources/student-success-resource-hub.html.

