FINA-4332:001

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT SPRING - 2022

COURSE INFORMATION:

Class Meeting Day & Time: Tuesday and Thursday, 11:00am – 12:15pm

Class Location: OCNR 145 **Instructor:** H. Zafer Yuksel

Office: OCNR 366

Office Hours: Tuesday and Thursday, 9:30am – 10:30 am or by appointment on Zoom

Office Phone: 361.825.6015 Email: zafer.yuksel@tamucc.edu

WEBSITES USED:

Blackboard

• <u>Instructor's personal website</u>

Zoom

Connect → you need to access the assignments and exams from the links in Blackboard!!

IMPORTANT MESSAGES:

Course Period: January 18 – May 12, 2022

Last Day to Register or Add a Class: January 25, 2022

Last Day to Drop a Class: April 8, 2022

Pursuant to the guidance we have received from TAMUS, the University encourages those who have not yet received their COVID-19 vaccination to wear a face covering, but the requirement to wear a face covering, along with University Procedure 34.99.99.CO.02, is rescinded immediately. In other words, face masks and vaccinations are encouraged, but they are not required at this time.

- If you are exhibiting symptoms of COVID-19 you should NOT report to campus. If you have not been vaccinated and have come into close contact with someone who has COVID-19, you should NOT report to campus. COVID-19 testing remains available on campus. Contact tracing and quarantining protocols for those who have not received vaccinations remain in effect.
- Vaccination remains the most effective way to mitigate the impact of COVID-19. Everyone 12
 and older is eligible for the vaccine. You may seek vaccination at scheduled clinics on campus, or
 you may seek vaccination through your local health care providers such as your primary care
 physician or pharmacy. Locate a vaccine provider near you on the CDC's vaccine finder website.
- It is recommended to continue practicing healthy habits including practicing physical distancing where possible, wearing a face-covering over your nose and mouth if you are not vaccinated, and staying home when sick.

COURSE DESCRIPTION:

Evaluation of investment securities of both private and public institutions through external analysis of financial statements and economic conditions, portfolio selection, expected return and risk selection, and conditions of market efficiency.

COURSE STRATEGY:

Each lecture has three major parts:

- 1. Theory: we carefully go over the theoretical idea and intuition behind the fundamental financial concepts.
- 2. <u>In-Class Labs/Assignments</u>: we immediately apply the theory into real-time data (i.e., stock prices) using <u>PYTHON</u> and/or <u>EXCEL</u>.
- 3. <u>In-Class Quizzes</u>: At the end of each lecture, you will receive a quiz regarding course material covered in the class.

COURSE OBJECTIVES & LEARNING GOALS:

By the end of this course, you will be able to:

- Understand the risk-return tradeoff, the importance of diversification, the important rules of portfolio constructions and portfolio optimizations.
- Understand the concept of market efficiency.
- Understand how to perform a portfolio performance evaluation.
- Differentiate the characteristics of stocks and bonds and learn how to value these financial products.
- Understand options, pricing of options, and simple option strategies, futures.
- Utilize various websites/databases to conduct company and industry analysis.
- Use Python and Excel to better understand and analyze the financial data.

CLASS MATERIALS:

Required Text:

- Essentials of Investments, 12th edition, by Zvi Bodie, Alex Kane, and Alan J. Marcus, McGraw-Hill Irwin, ISBN# 9781264140237.
- A free version of the textbook is available via Connect when students register with Connect[™], a
 McGraw-Hill web interface that allows students to complete all their assignments online.

Highly Recommended Reading Materials:

- Graham, Benjamin, *The Intelligent Investor*, New York: HarperCollins Publishers, 1949 (Foreword 2005 by John C. Bogle).
- Schiller, Robert J., Irrational Exuberance, Princeton University Press, ISBN# 9780691173122.
- Damodaran, Aswath, Investment Valuation, Wiley Finance Series, ISBN# 9781118130735.
- Bogle, John, Common Sense on Mutual Funds, Wiley, ISBN# 9780470138137.
- Sweigart, Al, Automate the Boring Stuff with Python, Free: (https://automatetheboringstuff.com/)
- Hilpisch, Yves, Python for Finance, O'Reilly, ISBN# 9781492024330

Highly Recommended Web Sites:

These sources help you gain an up-to-date picture of the U.S. and global economy and real time stock market updates and headlines.

- www.wsj.com
- www.ft.com
- www.financeyahoo.com
- www.seekingalpha.com
- www.morningbrew.com

PREREQUISITES:

FINA 3310, FINA 3331, ORMS 3310, and junior standing or above.

ADDITIONAL REQUREMENTS:

Financial Calculator:

- A calculator that does **two variable statistic** (that is y^x) is needed for homework and exams.
- **HP 10BII** or **Texas Instrument's BAII Plus** business calculators that are the models of calculator that are authorized for use during CFA exam.
- No scientific calculators will be allowed.

Electronic Device:

- Laptop computer is required to complete the course. To complete in-class quizzes and assignments, you are required to bring your laptop in every class.
- Chrome or Microsoft Internet Explorer (11.0) or Firefox, Adobe Acrobat Reader (11.0 or higher),
 Microsoft Office 2016. Please also visit <u>TAMU-CC student laptop recommendation that meets the needs of your program of study</u>.
- Internet Access for accessing Blackboard and university and publicly available databases and information.

IMPORTANT- Programming Environment:

- We need a computing environment required for Python programming.
- There are a variety of programming interfaces for Python including Jupyter Notebooks via Anaconda and/or Jupyter Notebooks via Google Colaboratory (**Google Colab**).
- In this class, we will use Python via Google Colab.
 - What is Google Colab? It is a free online cloud-based Jupyter notebook. However, you need a GMAIL account for access Google Colab. Once you have GMAIL account, you can code in Jupyter notebooks.

PYTHON:

What is Python?

It is an open source general purpose high level programming language.

- Open source: Free!
- It is available for all major operating systems.

Advantages of Python:

Python has been on the programming stage for over two decades

There are two main reasons we will use Python in this class:

- 1. It has several technical advantages compared to other programming languages.
 - It is an easy to learn programming language designed to be highly readable with a syntax. Plenty of online learning resources. Extensive data visualization support. Python likes BIG DATA!
- 2. Its practical application covers several industries.
 - Leading companies including major investment banks are using Python. There is growing demand for people who have solid knowledge about the world of finance and Python.

Do I need to have background in Programming?

<u>Absolutely NOT</u>! (Of course, if you have some experience in programming previously, it would be helpful). These are the reasons:

- 1. We will begin our class with a crash course in Python.
- 2. For each class, I will provide the related code and will carefully go over the reasoning behind coding.
- 3. Your homework and projects are based on these codes. You simply change, for example, ticker or time period or portfolio weights in the code.

What if I want to learn more about Python?

There are many python for finance courses available online (i.e., www.youtube.com, www.udemy.com, www.udemy.com

COURSE REQUIREMENTS:

ONLINE – LEARN SMART ASSIGNMENTS, HOMEWORK ASSIGNMENTS and QUIZZES:

- Over the course of the semester, each student will complete smart book (SB or Learn Smart) assignments, homework assignments, and quizzes.
- In BB9 (Blackboard) each unit folder contains a link to its corresponding learn smart (SB) assignments, homework assignments and quizzes.
- All assignments must be completed by their due date. They are open notes, open books.
- Students can submit two answers for each homework/problem question, and they are allowed to check if their answers are correct without any penalties. There are no time limit for homework assignments other than due dates. No printing is permitted.
- Quizzes have a time limit of 30 45 minutes and students are only allowed one answer.
 They should be completed after the homework assignments.

• IN-CLASS LABS/ASSIGNMENTS & IN-CLASS QUIZZES:

- o IN-CLASS LABS/ASSIGNMENTS: These labs are designed to apply what we learn into real financial data. In-Class Labs/Assignments will be part of your grade.
- IN-CLASS QUIZ: At the end of each class, each student will complete a quiz. These quizzes
 and assignments have time limit of 15-20 minutes and students are required to complete
 these assignments/quizzes during the class.

PROJECTS:

- There will be five to six individual projects for this class.
- The details of these projects will be announced during the class.
- Outside readings may be assigned.

• MIDTERM EXAMS:

- There will be two exams (not cumulative).
- Test materials will come from lecture notes, the text, assigned readings, homework, and class discussion.
- Test format can be essay type questions, multiple-choice theoretical questions and problems.
- Exam problems/questions will emphasize the understanding and application of concepts and topics covered.
- All tests are closed book, closed notes.
- Only a formula sheet will be allowed during examinations.

IMPORTANT RULES:

- The details and due dates of the projects and assignments will be announced in the class. All projects and assignments are to be turned in at the beginning of the class on their due date unless otherwise instructed. Late projects and assignments will not be accepted.
- Exam dates will be announced in class. **No make-up exams will be administered**. If you must miss an exam, notify me in advance and provide written documentation that the absence was an excused University activity, a severe illness, or a dire emergency. Exams are closed books. A sheet with formulas is allowed, but the formula sheet will be collected after the exam. To protect the integrity of the test banks employed, exams will not be returned. However, exams are available for review in my office during scheduled office hours for two weeks after the exam. Students are responsible for all material in the assigned readings, handouts, homework, and class presentations.

COURSE POLICIES:

Attendance/Tardiness: Experience has shown that regular attendance is essential to the successful completion of any course. Attendance will be taken at every class meeting.

Late Work and Make-Up Exams: No make-up exams will be administered. If you must miss an exam, notify me in advance and provide written documentation that the absence was an excused University activity, a severe illness, or a dire emergency. Otherwise, a zero will be assigned for the exam. All assignments are to be turned in at the beginning of the class on their due date unless otherwise instructed. Late assignments will not be accepted.

Academic Integrity/Plagiarism: University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity, or plagiarism. (Plagiarism is the presentation of the work of another as one's work.) In this class, academic misconduct or complicity in the act of academic misconduct on an assignment or test will result in disciplinary action.

Dropping a Class: I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you

decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. LAST DAY TO DROP THE CLASS is April 8, 2022. Dropping a class results an automatic grade of "W" this term.

Classroom/professional behavior: Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

Student Grade Appeals: As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged first to discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Dean's office in the college in which the course is taught or the Office of the Provost.

Disabilities Accommodations: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall 116. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

Statement of Academic Continuity: In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University-Corpus Christi, this course would continue through the use of Blackboard and/or email. Also, the syllabus and class activities may be modified to allow the continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

Civil Rights Statement: Texas A&M University-Corpus Christi is committed to fostering a culture of caring and respect that is free from discrimination, relationship violence, and sexual misconduct, and ensuring that all affected students have access to services. For information on reporting Civil Rights complaints and support resources, (including pregnancy support accommodations) or university policies and procedures, please contact the University Title IX Coordinator, Sam Ramirez (<u>Samuel.Ramirez@tamucc.edu</u>) or Deputy

Title IX Coordinator, Rosie Ruiz (Rosie.Ruiz@tamucc.edu) at (361) 825-5826 or visit the TAMUCC website at http://edcs.tamucc.edu/titleIX/.

Limits to Confidentiality. Essays, journals and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, are not able to maintain confidentiality when it conflicts with their responsibility to report alleged or suspected civil rights discrimination that is observed by or made known to an employee in the course and scope of their employment. As the course instructor, I must report allegations of civil rights discrimination, including sexual assault, relationship violence, stalking, or sexual harassment to the Title IX Coordinator if you share it with me.

These reports will trigger contact with you from the Civil Rights/Title IX Compliance office who will inform you of your options and resources regarding the incident that you have shared. If you would like to talk about these incidents in a confidential setting, you are encouraged to make an appointment with counselors at the University Counseling Center (https://counseling.tamucc.edu/).

Campus Emergencies: At TAMU-CC, your safety is a top concern. We actively prepare for natural disasters or human-caused incidents with the ultimate goal of maintaining a safe and secure campus.

- For any emergency, dial the University Police Department (UPD) at **361-825-4444** or dial 911. It's a good idea to have the UPD emergency number (and non-emergency number 361-825-4242) saved in your cell phone.
- There are nearly 200 classroom telephones throughout campus. If you feel threatened or need help and don't have a cell phone, dial 4444 (emergency) or 4242 (non-emergency) to be connected to UPD.
- If we hear a fire alarm, we will immediately evacuate the building.
 - Proceed to the nearest building exit or evacuation stairway. Do not use the elevator.
 Persons who need help navigating stairs should proceed to a marked Area of Rescue Assistance, if possible.
 - Persons with disabilities should speak with their faculty about how to best assist them in case of an emergency.
 - o Review the evacuation route (see specific Building Emergency Plan).
- TAMU-CC employs the Code Blue Emergency Notification System, an alert system which connects the campus community during emergency situations.
 - o The notifications include emails, text and pre-recorded messages, as appropriate.
 - Code Blue emergencies may include severe weather warnings, threats, school closures, delays, evacuations and other incidents which disrupt regular campus activities.
 - Students can update personal contact information anytime at https://emergency.tamucc.edu/contactform/
- Shelter in Place via Code Blue.
 - "Shelter-in-place" means to take immediate shelter where you are and may be implemented for severe weather, hazardous material spills, active shooters or other dangerous situations.
 - o If there is a shelter in place for a **tornado warning**, our preferred location is the bottom floor of this building, away from windows and doors.
- Active Threat Protocol. There are three things you could do that make a difference if there is an
 active threat: Run, Hide, and/or Fight. For more information about the Run, Hide, Fight protocol,
 including what to do when law enforcement arrives, visit

http://safety.tamucc.edu/ems/activethreat.html

For the *Quick Campus Guide to Campus Emergencies* (including a list of Areas of Rescue Assistance and additional protocols on assisting persons with physical disabilities, hurricanes, bomb threats, animal bites, crime reporting, elevator entrapment, etc.), visit:

https://safety.tamucc.edu/uploads/Site/finalbooklet.pdf

GRADING:

The final grade is a weighted average of scores. It is not based on TOTAL points

Course Work	Percentage of Total Grade
Online (CONNECT) – Learn Smart Assignments	100
Online (CONNECT) – Assignments (HWs)	100
Online (CONNECT) – Quizzes	100
In-Class Labs/Assignments	100
In-Class Quizzes	100
Projects	200
EXAMS (x2)	300
TOTAL	1000

A letter grade may be determined based on the percentage earned of total points possible, as follows: A: 90-100%, B:80-89%, C:70-79%, D:60-69%, F:0-59%

TENTATIVE CLASS SCHEDULE

Note: This is <u>a tentative outline</u>, and the actual coverage will depend on the pace of progress of the class.

Week	Dates	Topics	Chapter	Assignments (Online-BB9)	Due Date (by 11:00am)
1	1/17-1/21	Syllabus and Introduction Introduction to Python – Python Variables, Syntax, Iterations, Importing Modules Unit 1: Asset classes and financial instruments (Self-Read) Unit 2: ETFs, mutual funds, and other investment companies (Self-Read)	BKM Chapters 2,3,and 4	SB #1 and SB #2 HW#1 and HW#2 Quiz #1 and Quiz #2	1/25
2	1/24-1/28	Python – Importing Data from Web Unit 3: Macroeconomic and Industry Analysis Unit 4: Equity Valuation	BKM Chapters 12 and 13	SB #3 and SB #4 HW#3 and HW#4 Quiz #3 and Quiz #4	2/1
3	1/31-2/4	Unit 5: Calculating Return and Measuring Risk	BKM Chapter 5	SB #5 HW #5 Quiz#5	2/8
4	2/7-2/11	Unit 6: Investment Portfolio and Diversification	BKM Chapter 6	SB #6 HW #6 Quiz#6	2/15
5	2/14-2/18	Unit 7: Markowitz Portfolio Theory	BKM Chapter 6	SB #7 HW #7 Quiz #7	2/22
6	2/21-2/25	Unit 8: Capital Asset Pricing Theory and Arbitrage Pricing Models	BKM Chapter 7	SB #8 HW #8 Quiz #8	3/1
7	2/28-3/4	Unit 9: Portfolio Performance Evaluation	BKM Chapter 18	SB #9 HW #9 Quiz#9	3/8
8	3/7-3/11	Unit 10: Bond Prices and Yields (Self-Read) EXAM I (Unit: 1 – 9)	BKM Chapter 10	SB #10 HW #10 Quiz #10	3/22
9	3/21-3/25	Unit 11: Managing Bond Portfolios	BKM Chapter 11	SB #11 HW #11 Quiz #11	3/29
10	4/4-4/8	Unit 12: Option Market	BKM Chapter 15	SB #12 HW #12 Quiz #12	4/12
11	4/11-4/15	Unit 13: Option Valuation	BKM Chapter 16	SB #13	4/26
12	4/18-4/22	Unit 14: Option Valuation (Cont'd)	BKM Chapter 16	HW #13 Quiz #13	4/26
13	4/25-4/29	Unit 15: Future Market and Risk Management	BKM Chapter 17	SB #14 HW #14 Quiz#14	5/3
14	5/3	EXAM II (Unit: 10 – 13)			