Finance 562: Management of Financial Risk

Risk-taking is inherent to all businesses, all investments and most activities in life. Financial institutions in particular are necessarily exposed to risks. Risk *monitoring* is "getting the right information to the right people at the right time." Risk *management* is what one does with the information once it arrives.

While a no-risk business is a no-return business, decisions about which risks to take should ideally be made deliberately, explicitly, in advance, and consider opportunities, economic capacity and "infrastructure." Often, decisions do not incorporate these basic considerations.

Properly balancing risk and reward is the foundation of successful investing. This course focuses on the risk aspect of the investment equation.

Instructors:	John McMurray	jpmcm@uw.edu
	Gino Perrina	gino.perrina@gmail.com
TA:	Karim Farroukh	farroukh@uw.edu

Schedule: Tuesday evenings 18:00 to 21:00
Paccar 293

1. **Course Grade** will be determined as follows:

w	Components	Expectations
15%	One page written Summary of Proposed Trade (PT)	Efficiently generating and then concisely summarizing new trade proposals
20%	Participation, including: • Discussion of your PT • Discussion of other PTs • Discussion of group presentations • Discussion during lectures	PTs should incorporate: • Current environmental conditions • Concepts discussed in class • Concepts from the text and readings • A compelling rationale
25%	Group Presentation (GP), including: • Quality of analysis • Quality of exhibits • Quality of presentation • Quality of teamwork	GPs should incorporate: • Current environmental conditions • Concepts discussed in class • Concepts from the text and readings • Collective group skill sets
40%	Final given on official UW exam date	
100%	TOTAL	

2. **Questions & Office Hours.**
    a. In Class questions are highly encouraged. Don't be reluctant to ask questions to clarify what we are discussing. Every lecture and the course as a whole builds on what we learned previously, so being lost gets very costly very quickly.
    b. Email questions can be posed and we will attempt to answer questions as promptly as possible.
    c. Office Hours to be discussed and determined in the first class.

3. **Texts** = *Risk Management and Financial Institutions*, Fourth Edition by John C. Hull "**H**"

    A Practical Guide to Risk Management, by Thomas S. Coleman "**C**"

4. **Schedule** is summarized below. Updates will be provided as the quarter progresses.

Date	TOPIC	Text Chapters	Additional Readings
8 Jan	"Trades," Basic Risk & Return Measurement, Mean Variance Analysis	**H**: 1, 10.1, 11.1, 14.3, **C**: 1, 2	Active vs. Passive Pzena passive CFA Mean Variance
15 Jan	Risk Measurements, VaR, CVaR, Stress Testing	**H**: 7, 12, 13	TBA
22 Jan	Interest Rate Risk Credit Risk Intro	**H**: 9	TBA
29 Jan	Credit Risk, including Risk Transfer	**H**: 18, 19	TBA
5 Feb	Model Risk	**H**: 14, 25	Wired Article
12 Feb	Options	**H**: 8	
19 Feb	Enterprise & Operational Risk	**H**: 23, 27	TBA
26 Feb	GFC, MBS & ABS	**H**: 6	TBA
5 Mar	Alternative Investments		TBA
12 Mar	Review		NA
	Final		NA

5. **Class Attendance** is not mandatory but is highly encouraged as a significant portion of the grade is participation-based.

<u>Presentation Topic 1</u>

Construct a portfolio consisting of at least two but ideally 3 or more assets. At least two of the assets must be equities and bonds. Calculate the portfolio volatility. Show your volatility and correlation inputs, including how these were estimated. Graph how the portfolio volatility would change with changes to the equity volatility.

In a subsequent assignment, you will be asked to evaluate this portfolio on a benchmark relative basis. Please keep that in mind as you select assets for this exercise.

Some questions to contemplate ahead of calculations are:

1. How can returns be estimated?
2. How can risk be estimated?
3. What are some choices for and concerns with sampling historically-based return and risk data? Sampling considerations include:
    a. time frame/horizon
    b. frequency
    c. weighting
    d. accuracy