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Course Description

Business Finance 4239, *Risk Management*, extends the skills students developed in Corporate Finance and Investments classes to the role of risk management within the firm. Taking risks *and* mitigating risks are integral parts of what Senior Executives and Board of Directors do to create shareholder value. Yet, the global financial crisis and corporate meltdowns suggest that many companies do not fully understand the risks that they face or how to balance these risks to create value. Companies around the world are investing in enterprise risk management (ERM) functions and risk-aware employees. Risk management also has become one of the top priorities of boards, investors, regulators, and rating agencies.

In this course, students will learn the financial and economic foundations of risk management and techniques to identify, evaluate, and manage risks with the goal of balancing risks to create value. They also will gain insights into the features of a value-enhancing risk management function with the goal of developing the skills needed to be an effective member of a risk management team as well as a risk-aware professional.

The Details: Students will learn

- the concepts of risk, risk management, and enterprise risk management
- the financial and economic foundations of risk management
- the roles of governance and culture in risk decisions and risk management
- the main features of a value-enhancing risk management function
- the concepts of risk attitude, risk appetite, risk tolerance, and risk limit
- how to identify, assess (quantitatively and qualitatively), and manage the risks facing a firm
- how to effectively use risk communication with key stakeholders to create an understanding of the risks impacting the firm

¹Professors Huffner and Minton can change the course schedule if necessary with the exception of the exam and quiz dates (*unless class agrees to change the date to a later date*). Any changes made will be announced in class with sufficient advance notice and a revised syllabus will be posted on the course website.

² **UPDATED: AUG 28, 2018**

By the end of this course: Students will be able to demonstrate that they understand

- how the applications of ERM principles are linked to value creation and theory
- the importance of considering *both* risk and reward in decision-making
- the importance of considering culture, behaviors, and incentives in decision-making
- the breadth and depth of risks companies face
- existing and emerging ERM frameworks and perspectives
- how to “think” in the context of ERM
- how to “apply” ERM concepts to business scenarios (the “real world”)

Course Philosophy:

Professors Huffner and Minton strongly believe that learning is a collaboration between all participants in the course. Each week students will engage with the professors and each other in action-based learning to understand

1. the theoretical and economic foundations for each area explored in the course,
2. how these foundations can be used in practical business applications and
3. leading and emerging risk management methods, strategies, and practices

Course Resources

1. *Course notes* are posted on the course website. Please bring your notes to class each day to participate in the class discussion.
2. *Required HBS Coursepack:* <https://hbsp.harvard.edu/import/553313>. The cost of the coursepack is \$33.50.
3. *Required readings* are posted on the course website. Students are expected to have completed the assigned reading before class. To encourage preparation and facilitate class discussion, the professors will call on students in class to share their insights.
4. Suggested readings related to current events will be posted periodically on the course website.
5. *Additional Resources:* Below are some national and international news resources and trade associations that are relevant to the course and excellent sources of information.
 - The *Wall Street Journal* (WSJ) provides national and international news as well as detailed information on financial markets and institutions.
 - The *Financial Times* is a daily newspaper out of London with a US edition. The *Financial Times* offers a much more extensive coverage of economic and business activity outside of the United States, compared to most domestic news sources such as the WSJ.
 - The *Economist* is a weekly British newsmagazine that analyzes the week’s events and surveys financial market developments. Its target audience includes senior executives as well as high-ranking government officials.
 - *Bloomberg.com:* Bloomberg.com offers news, data, and videos on a broad group of markets, asset classes, and the economy.
 - *Risk Management Trade Associations*

- Global Association of Risk Professionals (GARP): A professional association for risk managers whose mission is to “advance the risk profession through education, training, and the promotion of best practices globally.” (www.GARP.org)
- The Risk Management Association (RMA): A not-for-profit, member-driven professional association whose “sole purpose is to advance the use of sound risk management principles in the financial services industry.” (www.rmahq.org)
- Risk Management Society (RIMS): A non-profit organization “dedicated to educating, engaging and advocating for the global risk community.” (www.RIMS.org)

Course Requirements and Grading

A Student’s course grade in this class will be measured by *both* individual and group work.

The course requirements include the following components:

Component	Individual/Group	% of total course grade
Quizzes (Online & in-class)	Individual	10%
Bloomberg Risk Assessment Report	Group	10%
Assignments (including in-class exercises)	Individual & Group	20%
Exam 1 (Monday, SEP 17)	Individual	20%
Exam 2 (Monday, NOV 26)	Individual	20%
Project (DUE, TUE, DEC 11, 9:00AM)	Group	20%
		100%

1. *Quizzes:*

Quizzes: There will be periodic quizzes covering required readings, material covered in pre-requisite courses, and class material. Quizzes will be online and in-class. In-class quizzes will take place at the start of class and last about 15 minutes. Information about what each quiz will cover will be announced in class prior to the quiz.

The lowest grade will be dropped and each of the grades will contribute equally towards the Quizzes component grade.

2. *Bloomberg Risk Assessment Report:* In this assignment, groups of no more than three (3) students will use Bloomberg tools to evaluate risks and differences between the risks of an Exchange Traded Fund (ETF) and those of a mutual fund. Each group will be working independently of all other groups. Details of the project will be discussed in class and posted on the course website during the beginning of the semester.

3. *Assignments:* The assignments will be individual and group, depending on the assignment. (Profs. Huffner and Minton will randomly assign students to groups for some of the assignments.) In either case, each student or group will be working independently

of all other students or groups. The assignments include exam-style problems, case studies discussion questions, questions related to assigned readings and completion of in-class exercises to be completed outside of class. All assignments are due at the beginning of class on the date indicated in the assignment. No late assignment will be accepted (See Course Schedule for assignments and dates). *Please note the assignments that are related to the completion of in-class exercises are not always listed on the syllabus.*

Each assignment grade will contribute equally towards the Assignments component grade.

4. *Exams.* There will be two non-cumulative exams:
 - a. *Exam 1:* Monday, SEP 17
 - b. *Exam 2:* **Wednesday, NOV 28**
5. *Project:* There will be a course project due **Tuesday, DEC 11, 9:00AM (online submission)**. Details of the project will be discussed in class and posted on the course website. Profs. Huffner and Minton will randomly assign students to groups for the project. Each group will be working independently of all other groups.
6. *Class Attendance and Participation:* Students are expected to **attend class** and to **arrive on time**. To a significant extent, the value you get from the course depends on your presence in class, and your classmates' opportunities to learn from your insights depend on your presence in class. To encourage preparation and facilitate class discussion, Profs. Huffner and Minton will call on students in class to share their insights.

As is the case with real world work environments, students are evaluated not by what they know but by what they **contribute**. Even if a student feels that he or she knows the material, unless a student shares his or her insights with the class, Profs. Huffner and Minton cannot adequately evaluate a student's preparedness and contribution. Students are never penalized for making comments which do not appear to be the "right answer." It is only through consideration of many diverse opinions and viewpoints that we will move toward a greater shared understanding of the multi-dimensional material that this course entails.

Class Attendance and Participation will be used in the final determination of a student's course grade.

Exam Policy:

Everyone will take the two exams on the assigned dates. **There are no make-up exams.**

Quiz Policy:

Everyone will take the quizzes on the dates or during allotted timeframe (Online quizzes) listed in the course syllabus. **There are no make-up quizzes.**

Extra Credit/Grade Change Policy:

Extra credit will not be offered unless it is available to the entire class. For example, if a student wishes to improve his or her grade at the end of the course, extra credit will not be available for

this purpose, as it unfairly penalizes students who have consistently worked hard throughout the course. *This policy is strictly enforced.*

Electronic Devices Policy:

The absence of unnecessary distractions and interruptions is essential for a positive and effective learning environment. Thus, students *may not use any electronic device* in class, unless explicitly permitted by the instructor. **All electronic devices (*including mobile phones*) must be turned off and put away prior to the start of class.**

Students who want to take electronic notes may do so *but only* if it is on a tablet device and that tablet must remain flat on the desk for the entire class time.

Office hours:

Unless announced otherwise, Profs. Huffner and Minton are available to meet with students on an individual basis by appointment. Please speak to us before class or email to make an appointment for an office visit.

Reviews for exams:

There will be a review session prior to each exam. Details will be announced in class.

Course website:

A course website is on Carmen (using the University's new Canvas system). The URL is <https://carmen.osu.edu>. The website will be used to post course slides, readings, materials for guest speakers, assignments, and online quizzes and surveys. Please check the website on a daily basis.

Communication:

The quickest way to contact Profs. Huffner and Minton is by email at huffner.7@osu.edu and minton.15@fisher.osu.edu, respectively. ***Please email outside of Carmen so that we can reply more quickly to your email.*** Emails sent through Carmen can only be answered from within Carmen. Given their schedules, the Professors are not always on Carmen. Students can expect a reply within 24 hours.

ACADEMIC INTEGRITY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic

misconduct, so Profs. Huffner and Minton recommend that students review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct. (Students can find the full Code at http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf)

If either Prof. Huffer or Minton suspect that a student has committed academic misconduct in this course, they are obligated by University Rules to report their suspicions to the Committee on Academic Misconduct.

DISABILITY SERVICES

The Student Life Disability Services (SLDS) (www.ods.ohio-state.edu) verifies students with specific disabilities and develops strategies to meet their needs. Students requiring accommodations based on identified disabilities should contact either instructor at the beginning of the term to discuss their particular needs. Students with a specific disability are encouraged to contact SLDS to explore potential accommodations available to them.

Part 1: Foundation of Enterprise Risk Management (ERM)	
<p style="text-align: center;">Week 1</p> <p style="text-align: center;">WED AUG 22</p>	<p style="text-align: center;">Course Introduction and Overview: What is Risk? Risk Management? ERM?</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • Kaplan and Mikes, 2012, Managing Risks, A New Framework, <i>Harvard Business Review – HBS Coursepack</i> • Kester, 1997, Introduction to Derivatives (<i>Recommended for students that want to review the basics of derivatives.</i>) – <i>HBS Coursepack</i> • Lam, James, Next Frontier: Performance-Based Continuous ERM <p><i>Assignments:</i></p> <ul style="list-style-type: none"> • Student Online Survey: Open until WED, AUG 29, 12:00PM
<p style="text-align: center;">Weeks 2 and 3</p> <p style="text-align: center;">MON, AUG 27 and WED, AUG 29</p> <p style="text-align: center;">MON, SEP 3 (Holiday) and WED, SEP 5</p>	<p style="text-align: center;">Firm Value and the Role of Enterprise Risk Management</p> <p style="text-align: center;">MON, SEP 3 – Labor Day Holiday (No class)</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • Dougherty, Chapter 7, Why is Risk Costly to Firms (42 pages). A good reference on the theory and review of basic investment theory. • Nocco and Stulz, 2006, Enterprise Risk Management: Theory and Practice, <i>Journal of Applied Corporate Finance</i>. • Stulz, 2013, How Companies Can Use Hedging to Create Shareholder Value, <i>Journal of Applied Corporate Finance</i> <p><i>Assignments:</i></p> <ul style="list-style-type: none"> • Firm's Risk Function Assignment DUE WED SEP 5 • Quiz 1 – On-line (covers the basics of firm value, risk and return, and derivatives from pre-requisite courses): Open THU AUG 30, noon – FRI AUG 31, 5:00PM.

<p>Week 4 MON, SEP 10 and WED, SEP 12</p>	<p style="text-align: center;">Governance, Culture and Risk Taking</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • JPMorgan 2016 10-K, Excerpt on ERM • Stulz, August 2016, Risk Management, Governance, Culture, and Risk Taking in Banks, FRBNY Economic Policy Review • Dieselgate – Heavy Fumes Exhausting the Volkswagen Group – <i>HBS Coursepack</i> <p><i>Assignment:</i></p> <ul style="list-style-type: none"> • Risk Management and Firm Value Assignment DUE SEP 10 (in-class submission) • Quiz 2 – In class (SEP 12): covers weeks 1, 2, and 3 • Dieselgate HBS Case Assignment DUE SEP 12
<p>Week 5 MON, SEP 17 and WED, SEP 19</p>	<p style="text-align: center;">EXAM 1: MON SEP 17 (Covers weeks 1 – 4)</p> <p style="text-align: center;">Guest Speaker: WED, SEP 19</p> <p><i>Readings (SEP 19)</i></p> <ul style="list-style-type: none"> • TBA <p><i>Guest Speaker Assignment (SEP 19)</i></p> <ul style="list-style-type: none"> • TBA
<p>Part 2: The ERM Framework</p>	
<p>Week 6 MON, SEP 24 and WED, SEP 26</p>	<p style="text-align: center;">ERM Function Overview and Risk & Business Targets</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • Review Lam, James, Next Frontier: Performance-Based Continuous ERM from week 1 • RIMS, 2012, Exploring Risk Appetite and Tolerance • Wittenberg and Pellerin, 2012, Defining your Risk Appetite: The Importance of Taking a Quantitative and Qualitative Approach <p><i>Assignment:</i></p> <ul style="list-style-type: none"> • Risk Identification Assignment DUE SEP 26

<p>Week 7 MON, OCT 1 and WED, OCT 3</p>	<p style="text-align: center;">Risk Assessment Overview & Quantitative Risk Assessment</p> <p><i>Reading:</i></p> <ul style="list-style-type: none"> • Curtis and Carey, 2012, Risk Assessment in Practice, <i>Thought Leadership in ERM</i>, pages 1 and 2; 8 -12 <p><i>Assignment:</i></p> <ul style="list-style-type: none"> • Bloomberg Market Concepts Completion Certificate DUE OCT 3 • Quiz 3 – In class (OCT 1): covers week 6
<p>Week 8 MON, OCT 8 and WED, OCT 10</p>	<p style="text-align: center;">Quantitative Risk Assessment Methods – continue</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • Das and Lynch, 1997, Value-at-Risk (excluding exercise) – <i>HBS Coursepack</i> • Nocera, Jan. 2, 2009, Risk Management, <i>NY Times Magazine</i> <p><i>Assignments:</i></p> <ul style="list-style-type: none"> • Bring laptop to class OCT 8 and OCT 10 • In-class Quantitative Risk Assessment Assignment
<p>Week 9 MON, OCT 15 and WED, OCT 17</p>	<p style="text-align: center;">Quantitative Assessment Methods Conclusion and GUEST SPEAKER (OCT 17)</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • Curtis and Carey, 2012, Risk Assessment in Practice, <i>Thought Leadership in ERM</i>, pages 3-5. • TBA. <p><i>Assignment:</i></p> <ul style="list-style-type: none"> • Quiz 4 – In class (MON OCT 15): covers weeks 7 and 8 • In-class Quantitative Risk Assessment Assignment DUE OCT 15 (online submission) • Guest speaker assignment due OCT 17
<p>Week 10 MON, OCT 22 and WED, OCT 24</p>	<p style="text-align: center;">Qualitative Risk Assessment Methods and Risk Interaction Risk Prioritization Methods</p> <p><i>Reading:</i></p> <ul style="list-style-type: none"> • Curtis and Carey, 2012, Risk Assessment in Practice, <i>Thought Leadership in ERM</i>, pages 12-18 <p><i>Assignments:</i></p> <ul style="list-style-type: none"> • Group In-class Probability-Impact Application Exercise (MON OCT 22) • Bloomberg Risk Assessment Report Due WED OCT 24

<p>Week 11 MON, OCT 29 and WED, OCT 31</p>	<p style="text-align: center;">RM and Non-financial risks and Guest Speaker (OCT 31)</p> <p><i>Reading/Video:</i></p> <ul style="list-style-type: none"> Enterprise Risk Management at Hydro One, Multimedia Case - HBS Coursepack Guest speaker readings TBA <p><i>Assignment:</i></p> <ul style="list-style-type: none"> Enterprise Risk Management at Hydro One Case Assignment DUE OCT 29 Guest speaker prep assignment DUE OCT 31
<p>Week 12 MON, NOV 5 and WED, NOV 7</p>	<p style="text-align: center;">Managing Risks – Part 1</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> Géczy, Minton, and Schrand, 2016, The Use of Multiple Risk Management Strategies: Evidence from the Natural Gas Industry (Paper Translation of 2006 <i>Journal of Risk</i> article) Harrington, Niehaus and Risko, 2002, Enterprise Risk Management: The Case of United Grain Growers, <i>Journal of Applied Corporate Finance</i> Meulbroek, 2002, A Senior Manager’s Guide to Integrated Risk Management, <i>Journal of Applied Corporate Finance</i> <p><i>Assignment:</i></p> <ul style="list-style-type: none"> Group In-class exercises NOV 5 Quiz 5 – In class (NOV 7): covers weeks 9, 10, and 11
<p>Week 13 MON, NOV 12 and WED, NOV 14</p>	<p style="text-align: center;">Managing Risks — Part 2</p> <p style="text-align: center;">MON NOV 12 – Veteran’s Day Observed – NO CLASS</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> Matos, P., 2013, 2012 Fuel Hedging at JetBlue Airways – <i>HBS Coursepack</i> <p><i>Assignments:</i></p> <ul style="list-style-type: none"> Group Hedging Case Prep Assignment Due NOV 14 Bring Laptop to class NOV 14 Group in-class exercise (NOV 14) DUE FRI NOV 16, 5:00PM (online submission)
<p>Week 14 MON, NOV 19 and WED, NOV 21</p>	<p style="text-align: center;">GUEST SPEAKER (NOV 19) and THANKSGIVING HOLIDAY BREAK (NOV 21)</p>

Week 15 MON, NOV 26 and WED, NOV 28	REVIEW For EXAM2 (NOV 26) and EXAM2 (NOV 28)
Part 3: Putting it all together	
Week 16 MON, DEC 3 and WED, DEC 5	<p style="text-align: center;">Risk Communications and Course Conclusion</p> <p><i>Readings:</i></p> <ul style="list-style-type: none"> • Nottingham, 2013, Risk Communication and Aligning the Board and the C-suite • The Phoenix Project: Remediation of a Cybersecurity Crisis at University of Virginia – <i>HBS Coursepack</i> <p><i>Assignment:</i></p> <ul style="list-style-type: none"> • The Phoenix Project: Remediation of a Cybersecurity Crisis at University of Virginia Case assignment DUE DEC 5
Final Exams Session	
TUE, DEC 11	Course Project Due by TUE, DEC 11, 9:00AM (Online Submission)