

# **“FINANCIAL RISK MANAGEMENT”- ABIZ 7410 GRADUATE LEVEL**

**Course Outline Fall Term 2023**  
(Course will meet fall term, once per week)

This course may be of interest to graduate students from areas such as agribusiness and agricultural economics, business, economics, and other areas.

## **Instructor**

Dr. Milton Boyd, Professor, 357 Agriculture Building. Office Hours after class, or by appointment.  
Tel: 474-6031 or 9384; Milton.Boyd@umanitoba.ca

## **Time and Place**

Room 365 Agriculture Building. Class time to be announced.

## **Course Description and Objective**

The objectives and learning outcomes of this course include developing analytical skills in financial risk management, along with writing skills and presentation skills for analytical research. Prerequisites: basic undergraduate knowledge of economics, statistics, econometrics, and math.

The course will focus on understanding financial risk management strategies, and examples used may come from areas such as commodities, insurance, financial markets, agriculture, and banking and credit. Students will also gain some experience using statistical and other software.

## **Textbook (Optional)**

Butler, Cormac. *Mastering Value at Risk*. London, Pitman Publishing, 1999.

## **Grading**

Mid-term Exam	40%
Final Exam	45%
Assignments	15%

Assignments will include problem sets, analyzing data sets with statistical software, and possibly reviewing research articles and making a class presentation. University policy strictly prohibits "plagiarism and cheating" as outlined in the University Calendar. Attendance is required. If a student must miss class for medical reasons or other reasons, they are responsible for getting any assignments, lecture notes, handouts, or other information/materials from their classmates. Missed exams receive a score of zero. Class lecture and materials are the property of the instructor or others, and it is illegal (copyright violation) for students to transfer these materials to parties outside the class or post on the internet.

## **Course Topics**

Course introduction; U.S. 2007-9 Financial Crisis & Risk; Market Efficiency & Behavioral Finance

Econometrics/Statistics Review

Demand estimation for insurance/risk management, and financial services

Definitions of risk

Four broad risk management strategies, five major areas of risk, six steps for managing risk, examples of specific risk management strategies

Risk management introduction (Ch.1 I)

Risk and utility (Ch.2 I)

Moral hazard and Adverse Selection (Ch.3 I)

Portfolio theory and risk management (Ch. 4 I)

Capital market theory (Chapter 5 I)

Benefits of risk reduction (Ch. 20 M)

Measuring risk on financial statements (Ch. 21 M)

Implementing a risk management program (Ch. 22 M)

Value at risk (VAR) Application; Estimating volatility (GARCH and EMA models)

Regulation and Basel Accord

Credit risk: Counterparty risk, Bankruptcy risk, Credit scoring and lending, Bond rating

Derivatives: futures, options, forward contracts, hedging, swaps

Portfolio optimization for investment

Simulation and option pricing models (Excel and other software)