科目ナンバリング	G-LAS10 80038 LE44　G-LAS10 80038 LE43　G-LAS10 80038 LE22						
授業科目名 <英訳>	リスクマネジメント論 Risk Management			担当者所属 職名・氏名	総合生存学館 准教授　金村　宗		
群	大学院横断教育科目群	分野(分類)	人文社会科学系		使用言語	英語	
旧群		単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）
開講年度・開講期	2026・後期	曜時限	木2	配当学年	大学院生	対象学生	全学向

（総合生存学館の学生は，全学共通科目として履修登録できません。所属部局で履修登録してください。）

[授業の概要・目的]

This course aims to explain basic concepts of risk management for business uncertainties and discuss practical methods for risk management, accompanied by strategic actions. Module 1 introduces existing risk management methods. Module 2 discusses risk hedging practices, and in Module 3, students have a deeper understanding of risk management based on group discussions, after introducing the processes to find new business strategies by balancing risk and return. Module 1 starts with the definition of risk and explains risk measurement and management of market risk, credit risk, and operational risk in business activities. Regarding market risk, we introduce a novel concept of VaR (Value at Risk). Then, we explain how to evaluate the quantity of credit risk defined by restructuring costs of business activities and risk capital, accompanied by credit ratings. We finally learn operational risk management based on the loss simulation method. Module 2 discusses the asset pricing theory of financial derivatives as strategic risk management tools. After explaining basic asset pricing concepts, we learn incomplete market pricing, which offers asset price boundaries, as well as complete market pricing. Module 3 explains modern portfolio theory and applies it to an optimal portfolio problem of power generation facilities, where power companies are considered a portfolio of fuels, emissions, and power as an example to bring risk management theory into a strategic action.

[到達目標]

Participants obtain new viewpoints on their own research by learning basics and applications of risk management.

[授業計画と内容]

(Course schedule and contents)
Module 1
【Class 1】　Overview and objective of risk management
【Class 2】　Market risk
【Class 3】　Credit risk
【Class 4】　Operational risk
Module 2
【Class 5】　Basic of asset pricing
【Class 6】　Complete market pricing
【Class 7】　Incomplete market pricing
【Class 8】　Weather derivative pricing
【Class 9】　Risk hedging practices
Module 3
【Classes 10 & 11】 Modern portfolio theory (Mean-variance approach)
【Class 12】 An application of MPT: optimal portfolio of power generation facilities for power companies
【Class 13】 Challenges of risk management: new risk indices
【Class 14】 Risk management of energy companies: discussions
【Class 15】 Summary of this lecture and future directions of risk management

リスクマネジメント論(2)へ続く↓↓↓

リスクマネジメント論(2)

[履修要件]

特になし

[成績評価の方法・観点]

Comprehensive evaluation based on a term paper and class participation

[教科書]

使用しない

[参考書等]

（参考書）

Luenberger David G 『Investment Science, New York』(Oxford University Press)

[授業外学修（予習・復習）等]

Separately instructed

[その他（オフィスアワー等）]

[主要授業科目（学部・学科名）]