# MS4232: CASUALTY INSURANCE

**Effective Term** Semester A 2022/23

# Part I Course Overview

**Course Title** Casualty Insurance

Subject Code MS - Management Sciences Course Number 4232

Academic Unit Management Sciences (MS)

**College/School** College of Business (CB)

**Course Duration** One Semester

**Credit Units** 3

Level B1, B2, B3, B4 - Bachelor's Degree

**Medium of Instruction** English

Medium of Assessment English

**Prerequisites** Nil

**Precursors** CB2200 Business Statistics, CB2201 Operations Management

**Equivalent Courses** Nil

**Exclusive Courses** Nil

# Part II Course Details

Abstract This course aims to

- · Provide students with a general knowledge of casualty insurance, both in principle and practice.
- · Develop the ability in students to define, formulate and solve problems in casualty insurance using statistical and/or quantitative techniques.

# Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Explain and illustrate basic knowledge of casualty insurance, both in principle and practice		х	Х	
2	Define and formulate problems in casualty insurance using statistical and/or quantitative techniques			Х	
3	Select and apply statistical and/or quantitative techniques for modelling casualty insurance data				x
4	Evaluate the use of statistical and/or quantitative techniques in solving casualty insurance problems			Х	x
5	Apply theoretical knowledge in casualty insurance to support and enhance the development of organizations in which they are employed			x	x

# A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

## A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

## A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

## Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Concepts and specific subject knowledge are explainedStudents listen to lectures and respond to specific problems interactively (in large or small groups)	1, 2, 3, 4	

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2	Tutorial exercises and activities	Students brainstorm ideas and/or discuss the answers to questions arising from case studies / problem sets With the teacher acting as a facilitator, the students work on assigned problem sets to consolidate their understanding of the concepts and methodsStudents are required to employ the problem-solving techniques learned in the course to design feasible solutions for the cases they encounter	2, 3, 4	
3	Group discussions	Students take part in discussions on major issues in class, critique case studies and/or report back to the class after brief small group discussionsThe instructor provides instant feedback and support for students' queries	1, 5	
4	Reading assignments	Students read relevant chapters/papers from the reference reading list to categorise and distinguish casualty insurance productsStudents conduct a critical evaluation and/ or identification of key issues related to casualty insurance	1, 5	

# Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Mid-term test	2, 3, 4	30	
2	Case report / other tasks	1,5	20	

# Continuous Assessment (%)

50

# Examination (%)

50

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**Examination Duration (Hours)** 

2

Assessment Rubrics (AR)

Assessment Task

Mid-term test

Criterion

ABILITY to APPLY the quantitative techniques to ANALYSE and SOLVE related problems

Excellent (A+, A, A-) High

Good (B+, B, B-) Significant

Fair (C+, C, C-) Moderate

Marginal (D) Basic

Failure (F) Not even reaching marginal levels

# Assessment Task

Case report / other tasks

## Criterion

ABILITY to TACKLE analytic problems, ASSESS contemporary casualty insurance topics and/or EVALUATE real/hypothetical financial planning scenarios

Excellent (A+, A, A-)

High

Good (B+, B, B-) Significant

Fair (C+, C, C-) Moderate

Marginal (D) Basic

Failure (F) Not even reaching marginal levels

Assessment Task Examination

# Criterion

DEMONSTRATED professional KNOWLEDGE of casualty insurance and the ABILITY to APPLY the statistical and/or quantitative techniques to FORMULATE and EVALUATE casualty insurance problems

Excellent (A+, A, A-) High

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Good (B+, B, B-) Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

# Part III Other Information

# **Keyword Syllabus**

# Introduction

Nature, scope and terminology of casualty insurance. Major lines in casualty insurance. Concept of risk.

**Risk and Risk Management** 

Introduction to risk management. Insurance and risk. Risk management techniques. Advanced topic in risk management. **Principle of Insurance: Functions and Benefits** 

Economic theory of insurance. Application of insurance. Legal principles in insurance. Insurance policy provisions. Analysis of insurance contracts.

Personal Risk Management: Homeowners Property and Liability Insurance

Homeowners insurance. Automobile insurance. Liability risk and personal liability insurance.

## Commercial Risk Management: Commercial Property and Liability Insurance

Commercial property insurance. Commercial liability insurance. Theft insurance, crime insurance and surety bonds. Ratemaking and Loss Reserving Techniques

Data for ratemaking. Exposure unit. Loss development factors. Chain ladder method. Bornhuetter-Ferguson method. Statistical Techniques In Casualty Insurance Work

Claim frequency and claim size distributions. Heterogeneity of risk. Risk premium. Excess of loss re-insurances. **Experience Rating** 

Credibility theory: full and partial credibility. No claim discount.

## **Reading List**

## **Compulsory Readings**

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	Title
1	Rejda, G E, Principles of Risk and Insurance, 7/e, Addison-Wesley, latest edition.

## **Additional Readings**

	Title
1	Insurance Intermediaries Quality Assurance Examination Scheme Study Notes 1: Principal and Practice, Office of Insurance Commissioner, Hong Kong, latest edition.
2	Insurance Intermediaries Quality Assurance Examination Scheme Study Notes 3: General Insurance, Office of Insurance Commissioner, Hong Kong, latest edition.

3	Brown R L, Introduction to Ratemaking and Loss Reserving for Property and Casualty Insurance, ACTEX Publications, latest edition.
4	Hossack I, Pollard J and Zehnwirth B, Introductory Statistics With Applications In General Insurance, Cambridge University Press, latest edition.
5	Williams C A, Smith M L and Young P C, Risk Management and Insurance, Irwin McGraw-Hill, latest edition.
6	Harrington S E, Niehaus G R, Risk Management and Insurance, Irwin McGraw-Hill, latest edition.
7	Vaughan, E J, Risk Management, John Wiley & Sons Inc., latest edition.
8	Office of the Commissioner of Insurance http://www.oci.gov.hk/
9	Hong Kong Federation of Insurers http://www.hkfi.org.hk/en_home.htm
10	Insurance Claims Complaints Bureau http://www.iccb.org.hk/en_introduction.htm
11	The Insurance Institute of Hong Kong http://www.iihk.org.hk/
12	Casualty Actuarial Association http://www.casact.org/