# SELECTED TOPICS IN ACTUARIAL SCIENCE (3) Modelling of Actuarial Risks

Class Number: 6465 Delivery Method: In Person

COURSE TIMES + LOCATION:

Tu 10:30 AM – 11:20 AM AQ 5008, Burnaby

Th 9:30 AM – 11:20 AM AQ 5025, Burnaby

INSTRUCTOR:

Cary Tsai

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1 778 782-7044 Office: SC-K10563

PREREQUISITES:

Dependent on the topic covered.

## Description

### CALENDAR DESCRIPTION:

The topics included in this course will vary from term to term depending on faculty availability and student interest.

COURSE DETAILS:

## **Course Title: Modelling of Actuarial Risks**

## Prerequisite:

ACMA 320 and permission of the Instructor

## **Course Outline:**

- -Asset share and solvency test
- -Risk measures and ordering
- -Modelling of mortality rates
- -Hedging of mortality and longevity risks
- -Pricing of mortality-linked securities

## Grading

| Assignments              | 15% |
|--------------------------|-----|
| Final Exam               | 35% |
| Projects                 | 35% |
| Reading and Presentation | 15% |

## All grading is subject to change.

#### **DEPARTMENT UNDERGRADUATE NOTES:**

#### Students with Disabilites:

Students requiring accommodations as a result of disability must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca

#### **Tutor Requests:**

Students looking for a Tutor should visit http://www.stat.sfu.ca/teaching/need-a-tutor-.html. We accept no responsibility for the consequences of any actions taken related to tutors.

#### **REGISTRAR NOTES:**

SFU's Academic Integrity web site <a href="http://students.sfu.ca/academicintegrity.html">http://students.sfu.ca/academicintegrity.html</a> is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

Each student is responsible for his or her conduct as it affects the University community. Academic dishonesty, in whatever form, is ultimately destructive of the Values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University. http://www.sfu.ca/policies/gazette/student/s10-01.html

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