

FACULTY OF SCIENCE Department of Mathematics and Statistics

Actuarial Science 513:

Fundamentals of Actuarial Practice

: see Course Descriptions for the applicable academic year: http://www.ucalgary.ca/pubs/calendar/

Reference Texts: Readings associated with (especially the qualitative) topics covered in the Society of Actuaries' Fundamentals of Actuarial Practice module, including selections from the texts *Understanding Actuarial Practice* by Klugman, S., (2012), and *Understanding Actuarial Management: The Actuarial Control Cycle* by Bellis, C., Klugman, S., Shepherd, J., and Lyon, R., (2010, Second Edition). Documents (e.g. standards of practice) from the websites of the professional societies will be featured in class. Material on effective communication and soft skills will be drawn from current business and self-development literature.

Syllabus:

Topics

The emergence of insurance and insurance companies.

The early history of the insurance industry.

The emergence of the actuarial profession and its professional societies.

The nature of actuarial work.

Areas of actuarial practice.

The control cycle.

Financial security systems.

Professionalism.

External forces (e.g. cultural, social, demographic, governmental, economic, business, physical, etc.).

Standards of practice and codes of ethics and conduct.

Effective communication and additional soft skills relevant to actuarial practice.

It is intended that this course should explore selected (especially qualitative) topics related to the Society of Actuaries' Fundamentals of Actuarial Practice module. This course syllabus should be updated as needed.

Actuarial Science 513 (Fundamentals of Actuarial Practice) Course Outcomes

- 1. By the end of the course, students will be expected to be able to explain and describe what financial security systems are, how they operate, and what services actuaries provide for them.
- 2. By the end of the course, students will be expected to be able to define "actuary" and identify an actuary's knowledge, skills, and abilities.
- 3. By the end of the course, students will be expected to be able to explain what a profession is and how actuaries bring professionalism to their work.
- 4. By the end of the course, students will be expected to be able to explain and describe what the Control Cycle is and how it facilitates actuarial work, and to apply it in the context of an actuarial problem.
- 5. By the end of the course, students will be expected to be able to identify and describe the general categories of external forces which are likely to affect the work of an actuary.
- 6. By the end of the course, students will be expected to be able to explain and apply elements of effective communication and describe the role of effective communication as part of designing solutions.

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