

COURSE OUTLINES (SYLLABI) FOR UNDERGRADUATE COURSES

(To be posted no later than the first day of class in the term a course is given)

Actuarial Practice AS4426/AS9426 Course Outline

1. Course Information

Course Information

Course Name: Actuarial Practice

Course Number: AS 4426F and AS 9426A

Term: Fall

Location: WSC 240

Time: Tue 9:30 AM - 10:30 AM, Thu 8:30 AM - 10:30 AM

List of Prerequisites

A minimum mark of 60% in <u>Actuarial Science 2427A/B</u>. Restricted to students who have completed all courses specifically mentioned in the Major in Actuarial Science module.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
			n/a	Tue: 10:30 AM – 11:30 AM
Kyle Leistner	kleistne@uwo.ca	WSC272		Thu 10:30 AM – 12:30 PM

Students must use their Western (@uwo.ca) email addresses when contacting their instructors.

If you plan on meeting me during my office hours, please email me in advance to schedule an appointment. This will reduce timing conflicts with other students.

3. Course Syllabus, Schedule, Delivery Mode

Introduction to the major areas and issues of actuarial practice, including insurance and annuity product design, pricing and valuation, analysis of the cost of pensions and other employee benefits, asset liability management, enterprise risk management, and professionalism.

Learning Outcomes

Upon successful completion of this course, students will be able to:

- Understand the various types of insurance products sold in the Canadian market
- Calculate, and interpret the results of different reserving methods
- Perform a product design and pricing analysis
- Understand the distinguishing characteristics of both defined contribution and defined benefit pension plans
- Calculate the cost components of a defined benefit pension plan
- Understand the various risks that large scale enterprises face

Classes are in person.

Week 1	Introduction	
September 9		
Week 2	Types of Insurance Contracts	
September 14		
September 16		
Week 3	Financial Elements of Life Insurance and	
September 21	Annuity Contracts	
September 23		
	Elements of the Gross Premium Calculation	
Week 4	Measuring Profitability	
September 27		
September 30		
Week 5	Life and Annuity Non-forfeiture Benefits	
October 5		
October 7		
Week 6	Investment Income Tax and Required Capital	
October 12		
October 14		
Week 7	Reinsurance	
October 26		
October 28		
Week 8		
Reading Week		
Week 9	Pricing, Reserving, and Profitability Exercise	
November 9		
November 11		
Week 10	Introduction to Pensions	
November 16		
November 18	Government Pension Programs	
Week 11	Employer Sponsored Programs	
November 23		
November 25	Pension Funding Basics	
Week 12	Enterprise Risk Management Introduction	
November 30		

December 2	
Week 13	Review
December 7	

Classes begin: September 8, 2021 Reading Week: November 1–7, 2021 Classes end: December 8, 2021

For individuals unable to attend lectures as a result of delays in getting to Canada, quarantine requirements, and other reasons related to the COVID-19 pandemic, there will be a live zoom session of each lecture. However, a recordings of these lectures **will not** be posted to the course website, so please attend the live session.

Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, synchronously (i.e., at the times indicated in the timetable). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

4. Course Materials

Students are required to purchase the following textbook:

Actuarial Aspects of Individual Life Insurance and Annuity Contracts (Third Edition)

By Albert Easton
Actex Publications (2014)

Students will also be required to purchase a digital Imprint package from the bookstore, which contains other source materials.

Students are responsible for checking the course OWL site (http://owl.uwo.ca) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

All course material will be posted to OWL: http://owl.uwo.ca.

If students need assistance with the course OWL site, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Technical Requirements

For students who are starting the semester abroad, or in the event of a COVID-19 resurgence, the following technical requirements apply:

- Stable internet connection
- Computer with working microphone

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Assignments (3) 75% Final Exam 25%

Assignment 1 (25%) – Professionalism and an introduction to life insurance (**Due Oct 7**)

Assignment 2 (25%) – Life insurance pricing and valuation, making observations, inferences, and decisions (**Due Nov 18**)

Assignment 3 (25%) – Pension design and valuation, making observations, inferences, and decisions (**Due Dec 8**)

Final Exam (25%) – Written answer test, with cumulative course coverage

The final assignment will be due at 11:55 PM on December 8th (the last day of classes).

The final exam will be in person and closed-book. It will be scheduled by the Office of the Registrar.

Accommodated Evaluations

- Late assessments <u>without</u> illness self-reports will be subject to a late penalty of 20%/day, and assessments that are submitted 5 or more days late will not be graded
- Late assessments <u>with</u> illness self-reports should be submitted within 24 hours of submission of the last illness self-report
- An assessment cannot be submitted after it has been returned to the class. The weight will be transferred to the final exam if the assessment was missed for valid reasons

Rounding of Marks Statement

Across the Sciences Undergraduate Education programs, we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. *Final grades* on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for mark "bumping" will be denied.

6. Student Absences

Academic Consideration for Student Absences

Students who experience an extenuating circumstance (illness, injury or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) Submitting a Self-Reported Absence (SRA) form provided that the conditions for submission are met. To be eligible for a Self-Reported Absence:
 - an absence must be no more than 48 hours
 - the assessments must be worth no more than 30% of the student's final grade
 - no more than two SRAs may be submitted during the Fall/Winter term
- (ii) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to the Academic Counselling office of their Faculty of Registration.
- (iii) Submitting appropriate documentation for non-medical absences to the Academic Counselling office in their Faculty of Registration.

Note that in all cases *except for an SRA*, students are required to contact their instructors within 24 hours of the end of the period covered, unless otherwise instructed in the course outline.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.

For the policy on Academic Consideration for Student Absences – Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

https://multiculturalcalendar.com/ecal/index.php?s=c-univwo.

Absences from Final Examinations

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under Special Examinations).

6. Accommodation and Accessibility

Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic Accommodation_disabilities.pdf,

7. Academic Policies

The website for Registrarial Services is http://www.registrar.uwo.ca.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

In the event of another health lock-down, the final exam in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More

information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

https://remoteproctoring.uwo.ca.

8. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: https://www.uwo.ca/sci/counselling/.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: https://www.uwo.ca/se/digital/.

Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mentalhealth) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.