

# Actuarial Practice AS 4426F / AS 9426A

## Course Outline

### 1. Course Information

#### Course Information

Course Name: Actuarial Practice

Course Number: AS 4426F and AS 9426A

Term: Fall 2023

Location: PAB 117

Time: Tue & Thu 8:30 AM – 10:30 AM

#### List of Prerequisites

A minimum mark of 60% in [Actuarial Science 2427A/B](#). 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 if you are dropped from a course for failing to have the necessary prerequisites.

### 2. Instructor Information

Instructor	Email	Office	Phone	Office Hours
Joel Smith	<a href="mailto:joel.smith@uwo.ca">joel.smith@uwo.ca</a>	WSC 268	n/a	Tue 1:15pm-2:30pm

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

### 3. Course Syllabus, Schedule, Delivery Mode

Introduction to the actuarial profession and the major areas of actuarial practice. Insurance and annuity product design, pricing, and valuation, profit metrics, the role of the Appointed Actuary, and other topics.

## Learning Outcomes

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

- Understand the various areas of actuarial practice in Canada.
- Understand and apply professional actuarial standards.
- Understand the various types of insurance products sold in the Canadian market.
- Analyze a typical actuarial problem and make recommendations with respect to product design, pricing, and reserving.
- Understand the role of the Appointed Actuary, Independent Actuary, and Peer Review Actuary.
- Review the work of another actuary and critique the analysis and conclusions.

## Lecture Schedule:

Week 1 - Sept 7	Introduction and Overview of Actuarial Practice Areas
Week 2 - Sept 12 & 14	The Actuarial Professional
Week 3 - Sept 19 & 21	Practice Area Specific Contracts and Standards
Week 4 - Sept 26 & 28	Advanced Life Insurance: Product Design and Distribution
Week 5 - Oct 3 & 5	Advanced Life Insurance: Pricing and Valuation
Week 6 - Oct 10 & 12	Advanced Life Insurance: Regulatory Capital Framework (LICAT)
Week 7 - Oct 17 & 19	Advanced Life Insurance: Measuring Profitability
Week 8 - Oct 24 & 26	Interim Group Presentations
Week 9 - Oct 30 to Nov 5	Reading Week
Week 10 - Nov 7 & 9	The Appointed Actuary
Week 11 - Nov 14 & 16	Advanced topics in actuarial science
Week 12 - Nov 21 & 23	Advanced topics in actuarial science
Week 13 - Nov 28 & 30	Final Group Presentations
Week 14 - Dec 5 & 7	In-class written report (closed book) In-class written peer review (open book)

Although the intent is for this course to be delivered in person, should any university-declared emergency require some or all of the course to be delivered online, either synchronously or asynchronously, the course will adapt accordingly. The grading scheme will **not** change. Any assessments affected will be conducted online as determined by the course instructor.

## 4. Course Materials

Students are advised to purchase the following e-book:

<https://www.actexamdriver.com/orderselection.aspx?id=453138583>

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

By Albert Easton

Actex Publications (2014)

Further recommended readings to be announced.

Students are responsible for checking the course OWL site (<http://owl.uwo.ca>) on a regular basis for course updates. 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 by phone at 519-661-3800 or ext. 83800.

**Important note:** cameras and recording devices are prohibited during lectures.

## 5. Methods of Evaluation

The overall course grade will be calculated as listed below:

- **Interim Presentation (15%)** – During class on Oct 24 or Oct 26  
Topic: Actuarial case study, including asking questions of another presenter
- **Final Presentation (15%)** – During class on Nov 28 or Nov 30  
Topic: Actuarial case study (continued)
- **In-class report 1 (15%)** – During class on Dec 5  
Topic: Closed-book, written report summarizing the analysis and results of the actuarial case study
- **In-class report 2 (15%)** – During class on Dec 7  
Topic: Open-book, written report reviewing and critiquing the analysis and results of a peer’s actuarial case study
- **Final Exam (40%)** – To be scheduled by the Office of the Registrar (exam period: Dec 10 to 22)  
Format: In person, closed-book, written answer test with cumulative course coverage

**Important note:** requests to review grades must be made in writing within one week of receiving the grade, after which the grade will be final.

### 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

If you are unable to meet a course requirement due to illness or other serious circumstances, please follow the procedures below.

For assessments totaling 10% or more of the final course grade (all work in this course), you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible. For further information, please consult the University's medical illness policy at

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

The Student Medical Certificate is available at

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf).

### **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 or more than 3 exams in a 47-hour period).

## **7. Accommodation and Accessibility**

### **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>.

### **Accommodation Policies**

Students with disabilities are encouraged to contact Accessible Education, 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](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf).

## **8. 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](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 their 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](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

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>.

## 9. 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/>.

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

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at [https://www.uwo.ca/health/student\\_support/survivor\\_support/get-help.html](https://www.uwo.ca/health/student_support/survivor_support/get-help.html).

To connect with a case manager or set up an appointment, please contact [support@uwo.ca](mailto:support@uwo.ca).

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 [http://academicsupport.uwo.ca/accessible\\_education/index.html](http://academicsupport.uwo.ca/accessible_education/index.html) if you have any questions regarding accommodations.