

**AS3429A/9429A
Life Contingencies II
W2018 Course Outline****1. General Course Information**

Prerequisites: A minimum mark of 60% in each of Actuarial Science 2427A/B and Statistical Sciences 2858A/B

Pre/corequisites: Statistical Sciences 3657A/B.

Lecture Hours: Mon, Wed, Fri, 10:30-11:30, WSC240

Pre/Corequisites Warning: 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

Instructor: Mary Millard

Office: WSC272

Email: mmillard@uwo.ca

Phone: 519-661-2111 ext. 88224

Office Hours: Mon 1:30-3:30 p.m., Thursdays 1:30 – 3:00 p.m.

You are welcome to communicate with your instructor by email, but email communication should only be used to provide them with information or to ask a question that requires a *brief* response. For more lengthy discussions and for discussions on lectures/course material, please see your instructor during their scheduled office hours or by appointment. When you send email, please use your UWO account (@uwo.ca), as these may be the only emails read.

3. Course Description/Syllabus

Academic Calendar Description: Single life annuity and life insurance loss random variables and their distributions with applications to the analysis of benefit premiums and reserves.

Material covered in this course will support some key learning objectives/outcomes from the SOA Long Term Actuarial Models (LTAM) exam. Specifically, the course primarily focuses on the LTAM learning objectives and outcomes that can be found under Topic 4: Premium Calculation and topic 5: Reserves, with a heavy emphasis on traditional Life Insurance and Annuities. The referenced LTAM learning objectives and outcomes can be accessed through the following link: <https://www.soa.org/Files/Edu/2018/2018-exam-ltam-syllabi.pdf>

We will first review material from Life Contingencies I and will then cover Chapters 6, 7, and a few selected topics from Chapter 11 from the *AMLCR* text. As time permits, we will also cover a few selected new topics introduced in the SOA LTAM exam.

AS3429/9429 is accredited under the Canadian Institute of Actuaries (CIA) University Accreditation Program (UAP) for the 2018-2019 academic year. Achievement of the established exemption grade in this course may qualify a student for exemptions from writing certain preliminary exams. Please note that a combination of courses may be required to achieve a single exemption. Please see <http://www.cia-ica.ca/membership/university-accreditation-program---home/information-for-candidates> for full details.

4. Course Materials

Text book: *Actuarial Mathematics for Life Contingent Risks (AMLCR)* by Dickson, C.M.D., Hardy, M.R., and Waters, H.R., **Second Edition**.

A solutions manual for the *AMLCR* Mathematics text has been published and this can be purchased online at Amazon. The authors have also published excel spreadsheets for some of the text questions and these can be accessed and downloaded from the Resources section found at:

<http://www.cambridge.org/ca/academic/subjects/statistics-probability/statistics-econometrics-finance-and-insurance/solutions-manual-actuarial-mathematics-life-contingent-risks-2nd-edition>

Other Materials: will be posted and/or announced on OWL

Students are responsible for checking OWL (<http://owl.uwo.ca>) on a regular basis. This is the primary method by which information will be disseminated to all students in the class. OWL will be used for this course for announcements and lecture note posting amongst other things. Note that a copy of the course outline is posted on OWL.

5. Method of Evaluation

Evaluation: Your overall course grade will be determined as follows:

<i>Quizzes</i>	:	20%
<i>Midterm</i>	:	30%
<i>Final Exam:</i>	:	50%

Quizzes: There will be **4 in class quizzes** on the following dates: **Fri. Sept 21, Fri. Oct 5, Mon. Nov 12 and Mon. Nov 26**. Each quiz will consist of a few questions on recently covered lecture topics.

Midterm: There will be a two hour midterm on **Monday October 29th**, from 5:00- 7:00 p.m. with location TBD.

Final Exam: A 3 hour cumulative final exam will be scheduled (by the registrar) during the December Examination Period.

Calculator Requirement: Any non-programmable calculator may be used.

Missed Midterm Test: The policy of the Department of Statistical and Actuarial Sciences is that there will be no make-up exams for a missed midterm. For those that do legitimately miss a midterm and provide the required supporting documentation, the standard practice will be that the weight of the midterm will be reassigned to the final exam. If your reason is not deemed valid, then you will receive a mark of 0.

6. Accommodation and Accessibility

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible and contact your instructor immediately. If

accommodation is approved by your Dean's office, your instructor will be notified, then it is your responsibility to make alternative arrangements with your instructor. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in NCB 280 and can be contacted at scibmsac@uwo.ca. For further information, please consult the university's medical illness policy at

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

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (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" (see

http://www.registrar.uwo.ca/examinations/exam_schedule.html).

7. Academic Policies

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

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, the centrally administered email 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 email received from the University at his/her official university address is attended to in a timely manner.

Scholastic offence: Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website:

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

Attendance: Classroom attendance is viewed as an important part of the learning process. Students are advised that excessive absenteeism may result in the student being disbarred from the Final Exam (see Western Academic Calendar).

Classroom Environment: The Department has adopted a "Mutual Expectations" policy governing the classroom environment and all work submitted by students. The full text of the policy can be found at: <http://www.uwo.ca/stats/undergraduate/mutual-expectations.html>. In summary, the policy was developed under the premise that all interactions between students and faculty should be governed by the principles of courtesy, respect and honesty.

8. Support Services

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 Services for Students with Disabilities (SSD) at 661-2111 ext. 82147, if you have questions regarding accommodation.

The policy on Accommodation for Students with Disabilities can be found here:

www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_disabilities.pdf

The policy on Accommodation for Religious Holidays can be found here:

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

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/mental_health) 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>.