



جامعة الملك فهد للبترول والمعادن
King Fahd University of Petroleum & Minerals

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

DEPARTMENT OF MATHEMATICS & STATISTICS

DHAHRAN, 31261, Kingdom of SAUDI ARABIA

AS 482: Actuarial Contingencies II

Term 142 – spring 2015

Instructor: Mr. Moenes Mellouli

Office: Building – 5, Room – 320 **Phone:** 7630 **E-mail:** mmellouli@kfupm.edu.sa

Office Hours: Sunday, Tuesday and Thursday: **10:00 – 12:00** or by appointment.

Class meeting Days: UTR 8:00 am – 8:50 am. Building – 6, Room - 209

For regular announcements, students are advised to check the **Blackboard** regularly.

Course Descriptions:

A continuation of Life Contingencies I. Development is based on a stochastic approach to insurance models. Major topics include benefit premiums and reserves, and multi-life and multiple-decrement models. Parallel treatment of topics based on Takaful system. Application of such area in life insurance and property.

Credit: (3 – 0 – 3).

Prerequisite: AS 381

Textbook & Package:

- 1- Cunningham, R.J., Herzog, T.N., & London, R.L. (2012) Models for Quantifying Risk, 5th edition. ACTEX Publication: Winsted, USA.
 - 2- Texas BAII plus calculator or Texas BAII professional
-

Activity Schedule:

Assessment for this course is based on a set of homework assignments, *three major exams* and a *comprehensive final exam*, as described in the following table:

Activity	Weight
Homework assignments	15%
Major Exam I <ul style="list-style-type: none">• Multiple decrement (Theory)• Multiple decrement (Application)• Multiple State Models Date: Sunday, March 1, 2015 Time: from 06:00 - 8:00 pm Location: TBA	20%
Major Exam II <ul style="list-style-type: none">• Multiple Life Functions• Interest Rate Risk• Universal Life Insurance Date: Sunday, April 12, 2015 Time: from 06:00 - 8:00 pm Location: TBA	20%
Major Exam III <ul style="list-style-type: none">• Pension Mathematics• Profit Testing• New Participating Insurance Date: Sunday, May 10, 2015 Time: from 06:00 - 8:00 pm Location: TBA	20%
Final Exam (Comprehensive) Date: Sunday, May 17, 2015 Time: 8:00 am Location: TBA	25%

Attendance:

- ✓ **Attendance** on time is *very* important. A 1% will be deducted from your final grade if you enter the class after 5 min. **No excuses will be accepted.**
- ✓ In accordance with the University rules, "a grade of **DN** in a course is given if the student's unexcused absences are more than 20% of the lecture and laboratories sessions scheduled for the course". Therefore, students who accumulate **9**, or more, unexcused absences will receive a **DN** grade.

Letter Grades:

Letter grade	A+	A	B+	B	C+	C	D+	D	F	DN
Cut-off	90%	85%	80%	75%	67%	60%	55%	50%	<50%	≥ 9 absences

Exam Questions:

- ❖ The questions of major exams are based on the examples & homework problems.
- ❖ While the first three major exams are a mix of Multiple Choice and written questions type exams (with 120-minutes duration for each), the Final Exam is completely MCQ exam with 180-minutes duration.

Missing Exam I or Exam II or Exam III:

- No makeup exam will be given under any circumstance. When a student misses Exam I or Exam II or Exam III for a legitimate reason (such as medical emergencies), his grade for this exam will be determined based on the existing formula, which depends on his performance in the non-missed exams and in the final exam.

General class information:

- Students are required to carry a pen/pencil, notebook and a SOA approved calculator to EVERY lecture.
- Students are required to carry a pen/pencil, a sharpener, and eraser and a SOA approved calculator to every exam.
- Homework is due one week after completing a chapter.
- No late homework will be accepted, regardless of the excuse.

General SOA MLC exam information:

- To successfully prepare for the SOA MLC exam, students MUST solve problems regularly. The selected assigned problems are specifically designed to prepare you for major and final exams and the SOA MLC exam. So, it is expected that you complete these problems step-by-step and with comprehension.
- The examination will consist of four hours of multiple choice and written-answer questions. Approximately, the exam will contain 20 multiple-choice questions and about 10 written answer questions.
- The new structure of the examination will use a unique grading process. Only candidates with scores above a certain threshold on the multiple-choice portion of the exam will have their written-answer portion graded. For those papers that are fully graded, passing will depend only on the total score.

Academic Integrity: All KFUPM policies regarding **ethics** and **academic honesty** apply to this course.