Main reference Text: "Models for Quantifying Risk", by Robert Cunningham, Ph.D., FSA, Thomas N. Herzog, ASA, Ph.D., Richard L. London, FSA. The latest version of this text should be purchased. Your Professor will advise you further.

Additional Reference Texts (NOT Required):


Syllabus

Topics

Chapter 9: Funding plans for contingent contracts / benefit premiums (including fully continuous, fully discrete, and semi-continuous cases, mthly payments, plans incorporating expenses, etc.)

Chapter 10 (10.1-10.4,10.6-10.7): Contingent contract reserves / net level premium benefit reserves (including prospective and retrospective methods, recursions, fully continuous and fully discrete cases, models with mthly payments, etc., excluding multi-state model representation)

Chapter 11: Contingent contract reserves / reserves as financial liabilities (including modified benefit reserves, reserves at fractional durations, non-level benefits and premiums, reserves incorporating expenses, universal life and deferred variable annuities, etc.)

Chapter 16 (16.1 only): Universal life insurance; time permitting, the examples in Section 16.1 may be incorporated into the discussion of universal life in Chapter 11 above.

Chapters 5-8, are assumed background knowledge. Those chapters may be reviewed very quickly at the start of term.

The chapters listed above correspond to those in "Models for Quantifying Risk" text, 5th edition. If another text is used as the main text, the same topics should still be covered.

Time permitting, additional MLC related material from elsewhere in the text, or from other sources such as the recommended texts, may be introduced at the instructor’s discretion.
It is intended that this course should cover a portion of the syllabus for that part of the professional actuarial examination concerned with Life Contingencies. Currently, this largely corresponds to most of the material listed from Chapters 9-11 on the syllabus for the Society of Actuaries Exam MLC – Models for Life Contingencies. This course syllabus should be updated as needed, with this objective in mind.