Instructor: <u>Dr. Gary Parker</u>

<u>Prerequisite:</u>
Math 232, STAT 285, and ACMA 210 (with a grade of C+ or higher)

<u>Required Text:</u>
Actuarial Mathematics (2nd ed) by Bowers, et al.; Publisher: Society of Actuaries

<u>References</u>:

  x   Models for Quantifying Risk by R. Cunningham, T. Herzog, R. London, Publisher: ACTEX
  x   ACTEX Study Manual for Exam M of the SOA, by Matt Hassett, Donald G. Stewart, Amy Steeby, publisher: ACTEX.
  x   Life Contingencies by C.W. Jordan; publisher: SOA.
  x   Life Insurance Mathematics by H.U. Gerber; publisher: Springer-Verlag.
  x   The Mathematics of Life Insurance by Menge and Fisher; publisher: Ulrich's.

<u>Calendar Description:</u>

Survival distributions: age at death, life tables, fractional ages, mortality laws, select and ultimate life tables. Life insurance: actuarial present value function (apv), moments of apv, basic life insurance contracts, portfolio. Life annuities: actuarial accumulation function, moments of apv, basic life annuities. Net annual premiums: actuarial equivalence principle, loss function, accumulation type benefits. Actuarial reserves: prospective loss function, basic contracts, recursive equations, fractional durations. Covers part of the syllabus for Exam M of the Society of Actuaries, and Exam 3 of the Casualty Actuarial Society, and covers practical applications such as computational aspects