Educational Requirements in Lieu of EA1(a) Exam

This is an explanation of the standards the Joint Board for the Enrollment of Actuaries will follow in determining whether a record of having successfully completed an academic program involving courses in actuarial mathematics will satisfy the basic actuarial knowledge requirement of section 901.13(c) of the Joint Board regulations. According to these regulations, this requirement will be met by a college or university graduate with either a major in actuarial mathematics or with sufficient courses in actuarial mathematics and related subjects to be equivalent to such a major.

In general, the overall academic program itself must meet two conditions:

1. The program must culminate in a degree from a regionally accredited college or university.

2. The required courses must be part of the regular program of instruction of the college or university where they were taken. Special reading or individual tutorial courses may not be used to satisfy this requirement.

For an academic program to be deemed by the Joint Board for these purposes to constitute a major or its equivalent in actuarial mathematics, it must contain as a minimum the following five elements:

1. **General Mathematics**

   12 semester hours or 18 quarter hours of analytic geometry and calculus. No more than 4 of these semester hours or 6 of these quarter hours are to be in analytic geometry. Courses in advanced calculus, differential equations, and linear algebra may be applied toward this total, but courses in intermediate algebra, college algebra, trigonometry, and general quantitative methods may not be so applied.

2. **Probability and Statistics**

   6 semester hours or 9 quarter hours in a course or courses which must have as a prerequisite at least 6 semester hours or 9 quarter hours of analytic geometry and calculus, but no more than 2 of these semester hours or 3 of these quarter hours are to be in analytic geometry.

3.   **Compound Interest and Annuities Certain**

2 semester hours or 3 quarter hours in a course which
must have as a prerequisite at least 6 semester hours
or 9 quarter hours of analytic geometry and calculus,
but no more than 2 of these semester hours or 3 of
these quarter hours are to be in analytic geometry.

4.   **Mathematics of Life Contingencies**

6 semester hours or 9 quarter hours in a course or
courses which must have as a prerequisite at least 6
semester hours or 9 quarter hours of analytic geometry
and calculus and as a prerequisite or co-requisite at
least 2 semester hours or 3 quarter hours of compound
interest and annuities certain. In the prerequisite of
6 semester hours or 9 quarter hours of analytic
geometry and calculus, no more than 2 of these semester
hours or 3 of these quarter hours are to be in analytic
geometry. A significant portion of the course or
courses in the mathematics of life contingencies must
be devoted to multiple life functions and multiple
decrement theory and applications.

It is the responsibility of any candidate for enrollment who
believes he/she satisfies the basic actuarial knowledge
requirements on the basis of the above rules to submit, along
with the application for enrollment, all necessary academic
transcripts and course descriptions for review by the Joint
Board.