

Educational Requirements in Lieu of EA-1 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 901.12(c) of the Joint Board regulations. According to these regulations, this requirement will be met by a graduate of a college or university accredited in the United States with either (1) a major in actuarial mathematics or (2) sufficient courses in actuarial mathematics and related subjects to be equivalent to such a major. For applications relying on 901.12(c)(3)(ii), 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.

Note that current Society of Actuaries (SOA) examination requirements for an ASA designation include a choice of either SOA exams ALTAM or ASTAM. The life contingencies topics covered on the Joint Board's EA-1 Exam are covered in SOA exams FAM and ALTAM. Several universities have required course offerings for a major in actuarial mathematics that align with these SOA exams. Students who have a choice to take a course that helps them to pass exam ALTAM or a course to help them to pass exam ASTAM are advised to take the course covering the exam ALTAM material. The Joint Board's EA-2F and EA-2L Exams presuppose knowledge of the subject matter tested on the EA-1 Exam. Therefore, candidates who received an EA-1 waiver due to a degree in actuarial mathematics, but who have not obtained proficiency in EA-1 exam topics, may need to take additional steps to prepare for the EA-2F and EA-2L Exams.

For an academic program to be deemed by the Joint Board for these purposes to constitute the equivalent of a major in actuarial mathematics, it must contain as a minimum the following four 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.

A semester or quarter hour may not be counted in more than one of the four categories.

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, syllabi and course descriptions for review by the Joint Board.

Updated August 10, 2026