

Changes to Curriculum Requirements for Centers of Actuarial Excellence (CAE)

In May 2021 the Society of Actuaries (SOA) Board of Directors approved a revision to the curriculum for candidates pursuing an ASA designation. We are making changes to the ASA curriculum to meet employer and market demand for actuarial training, in particular the need for increased data analytics coverage and new “soft skills” training in adaptability, change (AQ or Adaptability Quotient) and emotional intelligence (EQ or Emotional Intelligence Quotient.)

Read more about the [ASA curriculum changes](#).

In light of these changes, modifications to the CAE curriculum requirements have been made.

CAE A.2 Curriculum Criterion Requirements

Current CAE universities, as well as those seeking the CAE designation will be required to demonstrate 80% coverage of at least five SOA preliminary exams and must have approved courses for all three VEE topics to meet the A.2 curriculum criterion. The five exams must include Statistics for Risk Modeling (SRM), Fundamentals of Actuarial Mathematics (FAM), and either the Advanced Short-Term Actuarial Mathematics Exam (ASTAM) or Advanced Long-Term Actuarial Mathematics (ALTAM).

- Current CAE Universities will be expected to meet the new curriculum requirements by their first annual review application or five-year application due after January 1, 2024. Prior to that date, the CAE Evaluation Committee will expect to see progress toward that goal in all interim annual or five-year review applications (or 3-year applications if approved for University-Earned Credit (UEC).
- New applicants will be held to the current criteria guidelines for applications received prior to January 1, 2024. However, any such applications must include a plan showing how the new requirements will be met beginning with the academic year that starts in 2024.

The following pages outline the new A.2 criterion will become effective for all applications after January 1, 2024.

NEW CRITERIA GUIDANCE FOR A.2

Criterion A.2: The curriculum for the undergraduate program (or graduate program if no undergraduate program exists) must cover at least 80% of the syllabus-weighted learning objectives for at least five of the preliminary SOA examinations listed below. The five exams must include Statistics for Risk Modeling (SRM), Fundamentals of Actuarial Mathematics (FAM), and either the Advanced Short-Term Actuarial Mathematics Exam (ASTAM) or Advanced Long-Term Actuarial Mathematics (ALTAM).

- Probability
- Financial Mathematics
- Fundamentals of Actuarial Mathematics
- Advanced Long-Term Actuarial Mathematics
- Advanced Short-Term Actuarial Mathematics
- Statistics for Risk Modeling

The 80% threshold is per SOA examination. The university also must offer courses that have been approved by the SOA for all VEE (Validation by Educational Experience) subjects:

- VEE Economics
- VEE Accounting and Finance
- VEE Mathematical Statistics

The CAE program encourages syllabus coverage as part of a well-rounded actuarial education. The courses aimed at covering the preliminary exams are expected to be concept driven and not designed to teach only to passing the exams.

The Appendix B Criterion A.2 Syllabus Worksheets provide the appropriate syllabus-weighted learning objectives for each of the six preliminary SOA examinations. Weights are derived from syllabus weights set by the curriculum committee. A learning objective, or sub-objective, can be counted toward the 80% total (by weight) if it is covered by the appropriate course(s). If an objective or sub-objective is not completely covered in the curriculum, it cannot be considered toward meeting the 80% total.

Required Documentation

- Universities must complete and submit the Appendix B Criterion A.2 Syllabus Worksheets to show how the program's syllabus and examinations tie to the SOA learning objectives and how that course (or combination of courses) achieves 80% of the syllabus-weighted learning objectives for a particular SOA examination. If no undergraduate program exists please provide the requested information for the graduate actuarial program.
- For **each** course documented in the Criterion A.2. syllabus worksheets, please provide:

- Course syllabus and/or detailed learning objectives, showing how the syllabus/learning objectives match to the SOA examination’s learning objectives, and how that course (or combination of courses) achieves 80% of the syllabus-weighted learning objectives for a particular SOA examination.
- Course examinations, homework assignments and/or projects showing that the above has been evaluated.
- Courses approved for VEE credit must appear on the SOA’s Directory of Approved VEE Courses.

Guidance

- Universities must use the weights as published by the CAE Evaluation Committee, as set in the Appendix B Criterion A.2 Syllabus Worksheets.
- Learning objectives for a single exam do not have to be taught in a single course, but it is the preference of the CAE Evaluation Committee that learning objectives for a particular exam not be spread over too many courses.
- Courses used to satisfy this criterion must be offered with sufficient frequency that a student can easily complete those courses that cover 80% of the learning objectives for 5 of the 6 preliminary SOA examinations within the normal time period for earning the degree.
- If the university offers multiple actuarial majors, the curriculum for each must satisfy this criterion. The courses need not be required for the degree, however, they must be easily available to students and offered with sufficient frequency that students can easily complete those courses that cover 80% of the learning objectives.
- Universities may substitute for items in the SOA learning objectives. Such substitutions will be considered if the substitution of material presents techniques or principles that are more advanced/cutting-edge. It is not acceptable if the course curriculum differs so sharply from the SOA learning objectives that a student would not be reasonably prepared for the SOA examination.
 - It is not acceptable for a university to argue that courses are not offered for lack of student interest or resource availability.
 - It is not sufficient for a university to say it meets the SOA learning objectives because they use the same texts and course readings as the SOA examinations. Universities must still show how their curriculum satisfies 80% of the syllabus-weighted learning objectives for the covered examinations.