

**EDUCATION COMMITTEE OF THE SOCIETY OF ACTUARIES (SOA)**

**INTRODUCTORY STUDY NOTE**

**NOVEMBER 2025**

**INV201 QUANTITATIVE FINANCE**

**Monday, November 17, 2025; Time scheduled with Prometric Test Center**

1. The examination will consist of three hours of written-answer questions worth 50 points.
2. Candidates may approach the fellowship courses in any order; there is no longer a recommended order to take the curriculum. Each candidate will select their four courses based on their unique circumstances and career aspirations and will additionally determine their appropriate sequence based on factors including readiness to sit for an exam, exam administration schedules, or study time available. The candidate must complete one course sequence (a 100-level/200-level pairing within the same practice area) as part of their four numbered courses.

Generally, 200-level courses assume some level of familiarity with the 100-level course in the same practice area; beyond that, the course strategy guide will identify specific areas where knowledge from other courses is assumed.

3. The Syllabus materials may include textbooks, online readings, videos, module content, a course strategy guide and the study notes listed in the Appendix. The Appendix also may contain additional important information regarding this exam. A complete listing of the Syllabus and Learning Objectives is located in the course home page on the SOA website.
4. Several [book distributors](#) carry some or all of the textbooks for the Society of Actuaries courses.
5. Any changes to the syllabus after it is posted will be published on the course home page of the SOA website. Any additions or edits to supplemental course study materials will also be identified and published on the course home page.
6. [Past exams, solutions, and case studies](#) are available on the SOA website.
7. A course strategy guide is provided on the course home page and is intended to help candidates prepare for the exam. The guide explains the purpose of the course and provides a suggested approach to studying for the exam. While this guide can be a valuable aid in preparation, the material in it will not be tested.
8. The candidate is expected to be very familiar with the Learning Objectives. These Learning Objectives are the first ingredient in developing the syllabus and also guide the examination committee when writing questions. The Learning Objectives set out the cognitive level needed to pass this exam. You will notice that the candidates are expected to “analyze,” “explain,” “calculate,” “describe,” “apply,” etc.

While studying the syllabus material, candidates may want to refer back to the Learning Objectives to remain focused on the goals of the exam.

One helpful resource for candidates is the [Guide to SOA Written Exams](#), which provides additional guidance on cognitive levels and common verbs used, among other information.

9. The examination questions for this exam will be based on the required readings for this course. If a conflict exists (in definitions, terminology, etc.) between the readings for this course and the readings for other courses, the questions should be answered on the basis of the readings for this course.
10. Candidates may ONLY use these battery or solar-powered Texas Instruments models: BA-35, BA II Plus\*, BAII Plus Professional\*, TI-30Xa, TI-30X II\* (IIS solar or IIB battery), and TI-30X MultiView\* (XS solar or XB battery). Candidates may use more than one of the approved calculators during the examination.

Calculator instructions may not be brought into the exam room. During the exam, the calculator must be removed from its carrying case so the supervisor can confirm that it is an approved model. Candidates using a calculator other than the approved models will have their exams disqualified.

Candidates can purchase calculators directly from: [Texas Instruments](#), Attn: Order Entry, PO Box 650311, Mail Station 3962, Dallas, TX 75265, phone 800/842-2737

*\*The memory of the **BA II Plus**, **BA II Plus Professional**, **TI-30X II** and **TI-30X MultiView** calculators will need to be cleared by the examination supervisor upon the candidate's entrance to the examination room.*

11. A list of various [seminars/workshops](#) and [study manuals](#) appears on the SOA website. These seminars/workshops and study manuals do not reflect any official interpretation, opinion, or endorsement of the Society of Actuaries or its Education Committee.

Please note that the Education Committee expects candidates to read the material cited in the *Syllabus* and to use other material as a complement to the primary sources rather than a substitution for them.

12. The Society of Actuaries provides study notes to persons preparing for this examination. They are intended to acquaint candidates with some of the theoretical and practical considerations involved in the various subjects. While varying opinions are presented where appropriate, limits on the length of the material and other considerations sometimes prevent the inclusion of all possible opinions. These study notes do not, however, represent any official opinion, interpretation or endorsement of the Society of Actuaries. The Society is grateful to the authors for their contributions in preparing study notes.

The American Academy of Actuaries, the Canadian Institute of Actuaries, the Conference of Consulting Actuaries, and the Society of Actuaries jointly sponsor various examinations administered by the Society of Actuaries.

## APPENDIX

Study notes for this course are listed below. Study notes listed with an asterisk (\*) will also be included in the Revision set of study notes.

Code	Title	Former Code
INV201-100-25*	Chapter 5 of <i>Financial Mathematics – A Comprehensive Treatment</i>	
INV201-101-25*	Chapter 6 of <i>Introduction to Stochastic Finance with Market Examples</i>	
INV201-102-25*	How to Use the Holes In Black-Scholes	
INV201-104-25	Which Free Lunch Would You Like Today, Sir?	QFIQ-115-17
INV201-105-25	An Introduction to Computational Risk Management of Equity-Linked Insurance	QFIQ-134-22
INV201-106-25	Variable Annuity Volatility Management: An Era of Risk-Control	QFIQ-124-20
INV201-107-25*	It's RILA time: An introduction to registered index-linked annuities	
INV201-108-25	Mitigating Interest Rate Risk in Variable Annuities: An Analysis of Hedging Effectiveness under Model Risk	QFIQ-128-20
INV201-109-25	Investment Instruments with Volatility Target Mechanism	QFIQ-132-21

**The following additional information applies to this course:**

[ERRATA](#) is available for *Problems & Solutions in Mathematical Finance*, Chin, Nel, & Olafsson, Volume 1, 2014, John Wiley & Sons

ERRATA for Study Note INV201-106-25 Variable Annuity Volatility Management—An Era of Risk-Control:

In Exhibit 22 on page 26, the 5% and 5.5% labels are incorrectly switched. The light blue bars should be a 5% withdrawal rate and the dark blue bars should be a 5.5% withdrawal rate

The exam will include a cumulative normal distribution table identical to the one posted on the course home page of the SOA website.

**A formula package will also be available for this exam. It will be posted on the course home page of the SOA website.**

The exam will include a formula package identical to the one on the home page for this course. The exam committee felt that by providing many key formulas, candidates would be able to focus more of their exam preparation time on the application of the formulas and concepts to demonstrate their understanding of the syllabus material and less time on the memorization of the formulas. The formula

package was developed sequentially by reviewing the syllabus material for each major syllabus topic. Candidates should be able to follow the flow of the formula package easily. We recommend that candidates use the formula package concurrently with the syllabus material. Not every formula in the syllabus is in the formula package. **Candidates are responsible for all formulas on the syllabus, including those not in the formula package.** In general, formulas not in the package are either relatively fundamental or uncomplicated or are part of the derivative of formulas that are in the package.

Candidates should carefully observe the sometimes-subtle differences in formulas and their application to slightly different situations. For example, there are several versions of the Black-Scholes-Merton Option Pricing formula to differentiate between instruments paying dividends, tied to an index, etc. Candidates will be expected to recognize the correct formula to apply in a specific situation of an exam question.

Candidates will note that the formula package does not provide names or definitions of all the formulas or symbols used. With the wide variety of references and authors of the syllabus, candidates should recognize that the letter conventions and use of symbols may vary from one part of the syllabus to another and thus from one formula to another.