

GI 301 – Further Topics in General Insurance

Nov 2025/Mar 2026/Jul 2026

This Guide provides an overview of GI 301 – Further Topics in General Insurance – to help the candidate understand the essence of this course and to provide a guide for how to prepare for the examination of this course. However, while this Guide can be a valuable aid in preparation, the material in this Guide will not be tested.

I. Purpose of this Course

The purpose of GI 301 – Further Topics in General Insurance - is to provide candidates with knowledge of topics that go beyond those included in the foundational GI Courses. The topics are varied and do not necessarily relate to one another. As such, the order in which these topics are covered by a candidate is not important. However, the topics included are important. For example, reserving actuaries should be able to use stochastic reserving as included in GI 301 Topic 1 and ratemaking actuaries should be able to use classification ratemaking techniques from GI 301 Topic 6. However, all actuaries should understand both of these topics.

GI 301 should be taken after Course GI 101 - General Insurance Ratemaking and Reserving and Course GI 201 – General Insurance: Operational, Financial, Regulatory and Legal.

II. Exam Syllabus Learning Objectives and Learning Outcomes

GI 301 includes eight topics:

1. Stochastic Reserving
2. Development Analysis for Excess Limits and Layers
3. Premium Liabilities
4. Risk Margins for Unpaid Claims
5. Monitoring Results
6. Specialized Ratemaking Topics
7. Reinsurance
8. Catastrophe Models and Risk Loads

These topics are chosen to provide knowledge of technical analyses for general insurance actuaries that go beyond those presented in GI 101.

Topics 1 through 4 cover the analysis of insurance liabilities. Insurance liabilities consist of claim liabilities and premium liabilities. Topics 1 and 2 cover advanced reserving methodologies for claim liabilities. Topic 3 covers premium liabilities and Topic 4 covers an analysis framework for computing risk margins on insurance liabilities. Topics 1 through 4 should be read in the

COURSE STRATEGY GUIDE

GI 301 – Further Topics in General Insurance

Nov 2025/Mar 2026/Jul 2026

sequence presented as it provides a natural flow of the material. However, this is not strictly necessary as they are stand-alone topics. Furthermore, these topics may be read before or after Topics 5 to 8.

Topic 5 covers methods for monitoring results. Both ratemaking and reserving rely on estimates of ultimate claims. Topic 5 methods provide an understanding of how actual claim activity in interim periods between actuarial analyses may influence estimates of ultimate claims. Topic 5 is a stand-alone topic.

Topic 6 covers specialized ratemaking topics including classification ratemaking, policy deductibles and increased limits, claims made policies, individual risk rating, and the premium asset from retrospectively rated policies. The syllabus resources within Topic 6 may be read in any order. However, it is helpful to begin with classification ratemaking.

Topic 7 provides an understanding of reinsurance, methods for pricing reinsurance contracts, methods for testing if reinsurance contracts transfer significant insurance risk and the issues with reserving for reinsurance.

Topic 8 focuses on catastrophe models, demonstrating the uses of catastrophe model output. It also presents several approaches for allocating property catastrophe risk loads among accounts.

The following describes the eight topics for this course:

Topic 1: Stochastic Reserving

Topic 1 covers parametric models for stochastic reserving and provides methods for testing the assumptions in them. It also presents methods to quantify reserve variability. Additionally, Topic 1 presents the nonparametric Mack method for reserving. The Topic 1 syllabus reading includes two study notes written by the SOA, several chapters from a CAS monograph, and one paper.

This assumes that the candidate has knowledge of reserving as presented in GI 101 (or GI RR). The order of the readings should be as presented. Topics 1 to 4 may be read in any order. However, the topics are likely best learned in the order presented.

Topic 2: Development Analysis for Excess Limits and Layers

Reserving for excess limits and layers presents many challenges such as a lack of credible data, the volatility of loss development and the amplified effect of trend on losses. Topic 2 presents methods for reserving excess limits and layers. Additionally, Topic 2 describes the differences in

COURSE STRATEGY GUIDE

GI 301 – Further Topics in General Insurance

Nov 2025/Mar 2026/Jul 2026

development patterns and trend for excess limits and layers. The Topic 2 syllabus reading is an Appendix in the SOA textbook for general insurance actuarial analysis.

Topic 3: Premium Liabilities

Insurance liabilities are composed of claims liabilities and premium liabilities. Topics 1 and 2 were concerned with claims liabilities. Topic 3 describes the concept of premium liabilities and presents a method for calculating them. The Topic 3 syllabus reading is a chapter in the SOA textbook for general insurance actuarial analysis.

Topic 4: Risk Margins for Unpaid Claims

Topic 4 provides a risk margin analysis framework. This framework involves the identification of the sources of uncertainty underlying the actuarial estimates of insurance liabilities. Topic 4 continues with a method for selecting a risk margin for unpaid claims and premium liabilities. The Topic 4 syllabus reading is a paper on a framework for developing risk margins.

Topics 1 through 4 should be considered together as they all relate to estimating insurance liabilities. It is recommended that they be understood before moving on to Topic 5.

Topic 5: Monitoring Results

Topic 5 presents several approaches to monitor actual results and compare them to the expected results. It is important for actuaries to understand how actual claim activity in interim periods between actuarial analyses may influence estimates of ultimate claims. Estimating ultimate claims is the basis for both reserving and ratemaking. The Topic 5 syllabus reading is a chapter in the SOA textbook for general insurance actuarial analysis.

Topic 6: Specialized Ratemaking Topics

Topic 6 covers five specialized ratemaking topics. They are risk classification, pricing for deductibles and increased limits, claims-made ratemaking, individual risk rating, and the premium asset on retrospectively rated policies. Each of these specialized ratemaking topics are mostly stand-alone. However, they do relate to each other as they all involve ratemaking. The syllabus reading for this topic includes four chapters from a textbook prepared by the SOA, a study note prepared by the SOA specifically for this course, an article and a standard of practice for risk classification. The classification ratemaking readings should be learned as a group of related readings. These readings are best understood in the order presented. However, this is not strictly necessary.

Topic 6 may be covered before or after Topics 1 through 4.

COURSE STRATEGY GUIDE

GI 301 – Further Topics in General Insurance

Nov 2025/Mar 2026/Jul 2026

Topic 7: Reinsurance

Topic 7 explains reinsurance, presents approaches for pricing various types of reinsurance, and presents application of reinstatement premiums in a reinsurance contract. It provides several techniques for risk transfer testing of reinsurance contracts and it illustrates the many considerations in reinsurance reserving. The Topic 7 syllabus readings consist of one chapter from a textbook prepared by the SOA, two study notes, and three papers.

Topic 7 is mostly a ratemaking subject. As such, it is recommended that it be covered just after Topic 6.

Topic 8: Catastrophe Models and Risk Loads

Topic 8 explains typical catastrophe model output and uses for this output in pricing insurance and reinsurance contracts. Additionally, it presents a method to allocate risk loads to each account in a portfolio for property catastrophe coverage. The Topic 8 syllabus reading consists of a study note prepared by the SOA specifically for this course and two papers.

As Topic 8 mostly concerns catastrophe reinsurance ratemaking, it is recommended that it be covered just after Topic 7.

III. Recommended Approach in Preparing for the Course Assessment

Our recommended study approach is to first read the descriptions of the Learning Objectives and Learning Outcomes and then read the syllabus study materials in the order presented for each topic section. The recommended order is purposeful.

Keep in mind that each exam question is based on one, or a combination, of the Learning Objectives and Learning Outcomes. The candidate should be very familiar with the Learning Outcome statements as described in the syllabus and repeated in this document. These Learning Outcome statements were the first ingredient in developing the syllabus and guide the examination committee when writing questions (items). The Learning Objectives set out the cognitive level needed to pass this exam and will also provide an indication of what the candidates are expected to get out of the readings.

The syllabus readings build the candidate's knowledge, and each reading was selected to explain or illustrate one or more Learning Objectives. While studying the syllabus material candidates may want to consider both the organizational approach provided by this document and to refer to the Learning Objectives to remain focused on the educational goals being tested by this exam.