



SOCIETY OF ACTUARIES

Article from:

The Actuary

November 1999 – volume 33 - Issue 9

Study time

New Courses 3, 4 may require longer preparation

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Some actuarial educators observe that Courses 3 and 4 in the SOA's new education and examination system will demand more study time from students than the former courses did — and, therefore, will call for more help and understanding from the students' employers.

Of the eight courses and exams in the new system, probably none have inspired as much discussion among actuarial educators as Course 3 ("Actuarial Models") and Course 4 ("Actuarial Modeling"). These courses will cover material previously covered on SOA 120, 150, 151, and 160 and CAS 3A, 4A, 4B, and 5A. They will teach and examine the application of certain models and techniques applied to business problems and applying statistical methods to sample data to calibrate and evaluate models. Specifically examined are models involving contingent payments, survival, frequency and severity of claims, compound distribution, stochastic processes, and ruin.

Actuarial educators have been teaching material covered on these exams for some time in both university settings and independent seminars. At the Actuarial Research Conference in Des Moines this past August, an afternoon session was held for professors seeking guidance on how to prepare students for just these two exams.

University views

While Canadian actuarial science students at universities should find they can learn the material in the course of their university careers, it is likely that many U.S. candidates will be out of college and in the work force before they will take 3 and 4.

Michel Jacques, ASA, of Laval University's school of actuarial science, said he expects students to be prepared for the first four exams by the time they leave Laval. The Quebec university instituted a new, three-year actuarial science program in September. "We tried to organize it so students take exam 1 after the first year, 2 after the second, and 3 after the third. As for content, students will have preparation for exam 4 and even beyond by the time they graduate from the program. I think we will see our best students try exam 3 in the November session during their third year."

James W. Daniel, ASA, director of the actuarial program at the University of Texas, Austin, teaches both university courses and an independent seminar on the current SOA 150 exam and is preparing to offer university courses and a seminar on the new Course 3. He does not plan to teach a Course 4 seminar but will teach the material in the university setting.

"Course 3 is appreciably more sophisticated mathematically than 150. It is also bigger than the old exam," Daniel said. "It's going to be harder to learn the material. That doesn't necessarily mean it will be a more difficult exam, but having seen the sample exam available at the SOA's Web site, I think it probably will be."

Jacques said, "My impression was that it was not that different from before. The individual questions look like they have been taken from 150 and 151. I do think the statistics portion of the exam may be more sophisticated than in the past. On the other hand,



the probability questions look about the same.

"I would like to say that we are convinced that the exam system is much better now. In the past, the exams were testing more of what I call 'kitchen recipes' for problem solving than true understanding of the material. That is going to be tested better with the new system, but it's going to be a couple of years before we can really assess anything."

Employers, students, and new study needs

Daniel thinks most candidates will find it hard to pass these exams with no preparation other than self-study. He believes most will need some kind of structured learning, be it in a classroom or a seminar. However, he said, "There have always been people who do it all by themselves, and that will continue."

According to Daniel, a seminar on the courses will be neither brief nor inexpensive. "This is not going to be a two-day, \$200-\$300 seminar to pass Courses 3 and 4. Companies sending their actuarial students through this process need to be aware of this," he said. He added that some of the larger actuarial employers are already looking

for ways to help student employees pass 3 and 4. Some will bring in educators to teach seminars in the workplace, and others will be willing to let employees attend off-site seminars for a week or more. In Canada, independent seminars for the first four exams are not common.

Students learning the material in a university setting will also be investing a significant amount of time in mastering the material. "At UT, the material covered on exam 3 takes two four-hour courses and one three-hour course over three semesters," Daniel said. He added that master's candidates at universities will certainly cover the material in the course of their graduate education.

At the United States' largest actuarial science program, Georgia State University's, professors are readying for both classroom preparation and a seminar to replace the previous seminar on current SOA Course 150. "There's just a lot of material on these exams, and the material is more sophisticated," said Donald Behan, FSA, Ph.D., of GSU's actuarial science program. "We have designed our curriculum to include three to four three-hour courses per exam."

"I feel it is going to take more time to pass than the previous exams. Students used to be able to start studying in March to pass the May exams. With this one, they need to start in the

fall to pass the May exams.

"We are definitely going to offer a seminar, but it's very difficult to design. Right now, our 150 seminar is seven-and-a-half days. We are thinking of a nine-day seminar for exams 3 and 4. We will cover all the material, but subjects that require reading retention won't get a lot of treatment. We will have to concentrate on problem solving."

He said employers should remember, when deciding whether to send student employees to seminars, that although the study time commitment is great, overall travel time will be reduced. "I think we are down to really eight exams from what, 25?"

New exposure draft coming for revised U.S. code

A second exposure draft of the revised Code of Professional Conduct for the U.S. profession is currently being developed. The new draft will be forwarded to members of the five U.S.-domiciled actuarial organizations next year for comment.

Jack Turnquist, chairperson of the Joint Committee on the Code of Professional Conduct, said committee members have been considering comments submitted by members on the first exposure draft. The deadline for members' comments was Aug. 1.

The existing code is published in the "Actuarial Professionalism Annual Reports 1998" and the *SOA Yearbook*. The 1999 professionalism reports are scheduled for release in March 2000.

Professionalism report

Each year, the American Academy of Actuaries publishes the joint report of three important groups that work to maintain the current high standards of professionalism of U.S. actuaries. The booklet combines the annual reports of the Academy Committee on

Qualifications and of two independent bodies administered through the Academy, the Actuarial Board for Counseling and Discipline and the Actuarial Standards Board.

The Committee on Qualifications establishes the basic education, experience, and continuing education qualification requirements of those who perform publicly required actuarial functions. The 1998 report details changes made to the Qualification Standards for Prescribed Statements of Actuarial Opinion (qualification standards), changes which took effect Jan. 1, 1999, after more than three years' work.

The Actuarial Standards Board (ASB) sets actuarial standards of practice and ensures that they keep pace with the rapid changes in today's world. The ASB adopted one new Actuarial Standard of Practice (ASOP) in 1998, ASOP 32, "Social Insurance." The board also worked on revising standards for topics ranging from actuarial communications to actuarial principles and practices.

The Actuarial Board for Counseling and Discipline (ABCD) helps enforce actuarial standards. The ABCD offers guidance to help actuaries comply with the profession's Code of Professional Conduct and investigates complaints against actuaries. Because most actuaries have little contact with the ABCD, the board's 1998 report reviews the ABCD's background and describes its procedures. The ABCD's report also explains changes to its two guiding documents: the revised Article X of the Academy's bylaws, which took effect Nov. 25, 1998, and the ABCD Rules of Procedure, which became effective Jan. 1, 1999.

Copies of the 33-page booklet, "Actuarial Professionalism Annual Reports 1998," published by the Academy this past June, were sent to all members of the U.S.-based organizations. Additional copies are available from Rita Winkel at the Academy (fax: 202/847-1948; e-mail: winkel@actuary.org).