



SOCIETY OF ACTUARIES

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We've got two words for you

by Linda Heacox

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The Board Task Force on Education and Examination and the Design Team want to change the ways actuaries learn two basic, critical processes: modeling and thinking. These two words appear over and over in plans for developing actuarial skills suited to the environment of the 21st century.

In August 1995, the task force listed the skills it wanted the new syllabus and exams to foster:

- Unstructured problem solving
- Flexibility
- Adaptability
- Expertise in modeling techniques
- Global thinking
- Stochastic and dynamic approaches
- Expanded application of contingencies
- Imaginative responses
- Business value added

Design Team member Bruce L. Jones, assistant professor at the University of Western Ontario, said, "We hope these skills will better prepare actuaries to hit the ground running. Our goal is to add to their desirability by employers.

"Course 7, modeling, represents a big change from the way we teach modeling now. We envision it as an intensive seminar lasting at least one day and quite possibly longer. Candidates will work with computers and may be assigned teams. They will apply critical-thinking and problem-solving skills with the help of instructors. Admission will be limited to keep the instructor-to-candidate ratio low."

According to Jeff Allen, SOA education actuary, the new system will more closely reflect the things actuaries really do on the job. Many of the same subjects will be taught; the difference will be in the way they are taught.

"Right now," said Allen, "many subjects are being taught in a disjointed way. For example, modeling. We teach risk theory, demography, statistics, survival models, and other aspects of modeling all separately. But that's really not the way it is on the job. We want to integrate skills, and we want candidates to think critically in order to solve problems."



Allen said the Design Team hopes that by emphasizing this approach to subjects, actuaries will be better prepared to think of the tasks they perform in the total business context. To those who envision broader business roles for actuaries in the future, that kind of thinking is vital.

Marta Holmberg, Ph.D., SOA education executive, said, "People now pretty much see themselves as specialists. But the foundation for all those specialties is the same. So we want to emphasize the principles common to all types of practice, and we hope to make the foundation even stronger."

An actuary going through the new courses will be more comfortable as a generalist, according to Holmberg. "Somebody who wants a purely technical niche may not be comfortable

going through the system," she said.

"We hope this new approach will make them feel more confident when they see opportunities to break out of their boxes and head in new directions."

As for the specifics of the new integrated approach, Holmberg said, "It will be implicit in the exam process. Exams will require candidates to think of subjects as they relate to each other." Recruiter's eye view

Atlanta recruiter Terri Michalewicz, who has been placing actuaries for 12 years, emphasized the need for candidates to have a sense of the big business picture. "Historically, technical expertise was the primary requirement employers looked for. Now, more companies are giving greater importance to skills and abilities rather than focusing solely on specific technical experience," she said.

"Years ago, it was highly unlikely companies would consider anyone with anything other than an actuarial science, math, or statistics degree. Often, successful candidates had both a bachelor's and a master's in the same area," she explained. Now, it's not unusual to see undergraduate degrees in history, English, and other liberal arts disciplines.

"Companies don't see that as a negative anymore. As a matter of fact, some point to it as a plus, showing the possibility of a well-rounded person. MBAs are highly valued. Companies are looking for good business people," she said.

That lesson was highlighted last year when Michalewicz went looking for an actuary to work for a commercial bank. The interview process proved a challenge. "Finding the right technical skills was not the problem. The non-technical ingredients were hard to find.

"The bank wanted an actuary who understood corporate finance issues, such as how capital is raised, how deals get done, and how their world

relates and interacts with the rest of the company. The person had to be able to communicate in a way bankers could understand. Many candidates had a difficult time.”

Michalewicz did eventually find the right person. “I talked to the bank the other day. They are happy with the performance and the contributions of this actuary. The two worlds are coming closer together.”

Interestingly, it was the bank that came calling. “They came to me and said, ‘We understand the asset side, but not the liability side. We think we need an actuary.’”

It is a phrase Michalewicz is hearing often these days, the result of growing awareness of risk management in the general business community. “Risk management is seen as a critical component of managing a business. Historically, many companies used asset/liability matching strictly to meet regulatory requirements. Today, asset/liability management and risk management in general is

considered a necessity, not a luxury. Actuaries are seen as risk management professionals.”

Perhaps the biggest obstacle for candidates is overcoming some general perceptions about actuaries, she said. Managers generally believe actuaries are bright, but think they often lack communication, interpersonal, and management skills. They’re good problem solvers but may be narrow and unable to see the big picture or business aspects. They are ethical but capable of arrogance and rigidity. They’re analytically and quantitatively strong but may lack marketing sensitivity. They may be expert modelers and detail-oriented but often are unable to think “outside the box.”

Michalewicz’s list of skills actuaries need to be hired both in traditional and nontraditional roles includes:

- Effectiveness as a communicator
- Management and leadership ability
- The ability to influence and negotiate

- Understanding business principles
- Technical and analytical skills

She urges development of all these skills and said actuaries need to be able to demonstrate mastery of them to potential employers.

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College of Business and Public Administration in 1980, and he attained Fellowship in the Society of Actuaries in 1984. His professional activities have included presentations at numerous professional meetings and business conferences. He has served on the Actuary of the Future Task Force and Section Council.

We look forward to tapping into Selig’s broad business experience as we develop future issues of *The Actuary* together.

Faculty openings announced by 2 universities

Chang Gung College of Medicine and Technology
Tao-yuan, Taiwan

Positions: The school is inviting applications for positions in actuarial science, insurance, risk management, finance, accounting, marketing, human resource management, and management information systems. Positions are open at the levels of professor, associate professor, assistant professor, and lecturer.

Qualifications: Qualifications include a doctorate or credits toward a doctorate in the related area, a strong commitment to teaching, and an equally strong commitment to research.

Language: English is the official teaching language.

Application: Candidates may forward their resumes to Professor Chang, Director, Graduate School of Management, Chang Gung College of Medicine and Technology, 259, Wen-Hua 1st Road, Kwei Shan, Tao-Yuan 333, Taiwan, R.O.C. Telephone, 886-3-328-3016, ext. 5410; fax, 886-3-327-1304 and 886-3-328-3031.

University of Waterloo
Waterloo, Ontario

Position: Tenure track position and/or definite term position in actuarial science at the assistant or associate professor level effective July 1, 1997, or later.

Duties: Undergraduate and graduate teaching and development of an independent research program.

Qualifications: A doctorate with research in an area of the mathematical sciences, and interests closely related to actuarial science. Proven ability in or potential for research. Good teaching and communication skills.

Application: Closing date for applications is February 28, 1997. Applicants must be Canadian citizens or permanent residents. Applicants should submit a curriculum vitae and arrange for three letters of reference to be sent to: Professor Mary E. Thompson, Chair, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, ON, Canada, N2L 3G1.