
RISKY BUSINESS

— News and notes on the Actuarial Studies Program —

Department of Mathematics

Spring 2011

The University of Texas at Austin

From the Director

Welcome. Our annual newsletter provides the content for our actuarial program's primary fund-raising drive. We hope that you enjoy learning about the activities of our students, faculty, alumni, and friends. Contributions from this drive provide critical resources that support student scholarships and our teaching faculty.

Last academic year ended with the student club officers organizing a retirement party for Jim Daniel. Jim successfully retired August 31 and he and Ann moved to Davis California in October. I try to use actuarial activities to provide opportunities for students to take ownership and develop their leadership skills. Some of my greatest rewards occur when students embrace and excel in these varied activities. So thanks to the ASC officers and to the first student editors of our newsletter.

Other goals and effort focus on what students do, learn, and accomplish. This past year, my greatest successes and failures have been with students. I refuse to document these failures, but my best days have been Jackie passing her P/1 exam, Shelley's presentation, calling a student's aha moment an epiphany, and learning from a 1960 alum of our program.

The coming year will see modest changes in our courses and degree requirements - primarily due to changes in the MLC syllabus. We are also recruiting our most skilled lecturers to teach Interest Theory and eventually other actuarial courses. We get to influence our students a great deal, so I will do what I can to recruit, retain, and reward excellent instruction and support the interaction between student and professor. Any employer wanting to support this initiative is encouraged to call.

My inability to make every student care, to be honest with self and others, and to develop their voice occasionally frustrates me. But I vow to be consistent. We will not use the word "it" and we will take responsibility for our actions. Students are encouraged to present problems or lecture over content in my classes. *A note to employers* - I rank every student who took advantage of this opportunity over every student who did not. If interviewing any of my students, please ask them what they contributed.

Most importantly, I want to close by thanking past and future donors, the math department leadership, the department and university staff, Jim Daniel, our advisory board members, our alumni and many of my students.

If you have suggestions, please contact me.

-Maxwell

Risky Business

Message from Actuarial Science Club

The Actuarial Science Club's primary purpose is to help students interested in actuarial science learn more about the actuarial career path. As a way to keep students at the University of Texas at Austin informed about the growing profession, the club features professional speakers from the career field who present actuarial-related topics to club members. The officers of the club include Dalesa Bady (president), Lindsay McDowell (vice-president), Lauren Baker (financial director), Graham Duncan (administrative director), and Devon Wilson (events coordinator).

The fall semester started with a bang. Officers of the club reached out to students in various actuarial courses by advertising weekly club meetings and providing details on club resources. Following the second week of the fall semester, the club held its first meeting which featured a student internship panel as the main guests. Nine students shared their summer internship experience, giving their advice on how to succeed in obtaining an internship and also allowing members to ask questions throughout the informal discussion.

To prepare for the Fall Career Fair Expo, the club welcomed Laura Mondino, a Natural Sciences Career Services advisor, who gave a workshop on building résumés. Furthermore, members were encouraged to attend a bowling and billiards event at the Union hosted by Mercer following Laura's workshop. Mercer representatives from the Dallas and Houston offices were highlighted at the next meeting. Marissa Williams from Retirement, Vi Phu from Health and Benefits, and Gina Kim from HR, held a company information session where members could ask questions about available

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Explore Internship/Job Hunting Process

Acquiring relevant work experience while in college is a major focus for actuarial students. Those who are lucky enough to obtain such opportunities are able to gain some industry insight and, hopefully, figure out which line of actuarial work they would like to pursue after graduation. However, it's not easy to get an internship or full-time job offer, as there're limited positions available, and competition can be fierce. As a result, the opinions and information gathered from people who have gone through the internship/job hunting process can be very valuable and helpful to you.

We have interviewed some actuarial employers who come to career fair every year, as well as graduating seniors with internship experience. Their advice should help you as you navigate the job hunt. At the very least, you may avoid repeating a mistake that others have made before you.

Here's what actuarial employers say:

➤ How many exams do you need for an internship or full-time job?

It's obvious that at least 1 exam is the basic requirement in most companies, especially for a full-time offer. We do see some outstanding students received internship offer without exams, but that means other parts of your resume should be really attractive.

2 or 3, enough?
4 or 5, too many?

Some student may worry about taking too many exams. It's hard to set a threshold for the maximum number of exams you want to pass. Among all actuarial employers we have interviewed with, only one of them said that they prefer 2 or 3 exams, with all the rest of them answered "as many as you can". But beware that, if you have 4 or 5 exams passed, you'd better have some relevant work experience. The over-qualification problem is most likely to arise when you lose the balance between your exams and work experience.

➤ What should interns do to maximize their internship experience?

Don't think that employers treat you like a student! They put you in their office because they think you're a potential candidate for a full-time job, and they expect you to behave professionally.

But, do not be afraid of asking too many questions! Though employers don't want you to act unprofessional, they realize that you are new to the industry and know little about what they do on daily basis. You should avoid claiming to understand something you don't, or asking the same questions twice. It would be a good strategy to go around the office and ask different people about the various questions you have, listening carefully and thoughtfully to their responses. Also, it's better to ask for clarification before you start doing your project. Be sure to understand what you are expected to deliver to them. You can leave a negative impression if you claim that you know what your task is, but return something that does not meet their requirements.

- **Be Professional**
- **Ask if you don't know**
- **Be Proactive**

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Also, remember to be proactive. If you have finished your project, and new work hasn't come in yet, then go to other people in your office and ask if they have something that you can help with. In addition, try to understand the big picture of your work instead of just the task at hand.

➤ What should students research about the company they're going to interview with?

It's embarrassing to be speechless when interviewer asks you whether you know about what his/her company does, and you don't. Definitely remember to research online or talk to someone in the company to gather information about the company's business structure and strategy. Also, looking through recent industry news can help you raise good questions during interviews.

- ◆ **Business Structure and Strategy**
- ◆ **Company Culture**
- ◆ **Position you're applying for**

Make sure that you know something about the company's culture. It's important that you like the environment that you're going to work in every day. This can also be an ideal answer to questions like "why do you want to apply for our company".

The last suggestion would be to check carefully about the position that you are applying for. Oftentimes, potential employers ask about why you chose the position that you're interviewing for versus another one within the same company (e.g. pension vs. health). You do not need a long and sophisticated answer, however you should be clear about the differences between the various positions. You should be able to explain why you are interested in a particular position so you don't leave employers with an impression that you don't know what you are going to do.

➤ How should you effectively follow up with employers after events like info session or interviews?

It's courteous to send out a thank-you notes after interviews. However, if you are still using a template each time and only change the name after "Dear Ms./Mr.", then you should reconsider your approach. It's a good idea to mention something in your conversation with the interviewer, such as a question you have asked or information

Explore Internship/Job Hunting Process

the recruiter told you. This can remind them of your conversation and leave them a deeper impression of you.

There's another way to show that you're really interested in the position that you're applying for: send follow-up emails to the people you met during your interview. In such an email you could raise questions about outstanding issues, or just

- Customized thank-you note
- Ask follow-up questions

about their company or industry. This will show them that you're putting a lot of effort into building a connection with them.

*Special Thanks to Catherine Taylor (USAA), Brian Frost (Towers Watson), Brian Levine (Aon Hewitt), Cat Patson (Aon Hewitt), Meagan Hughes (Deloitte) and Sanchi Srivastava (Ernst & Young) for providing all these information to us.

Here's what graduating seniors say:

➤ Are there things students can do to prepare for an internship after they get one?

One recommendation mentioned by a lot of students we interviewed is to brush up your MS Excel skills. There might be other software you need to learn after your internship starts, but Excel is a ubiquitous and quite powerful tool that can be used to manage data. Matthew pointed out that some lines of actuarial work place less of an importance on programming languages. Knowing how to perform tasks such as parsing or look-ups in Excel, however, is always valuable. Also, some students said that they needed to use VBA and/or SQL in their daily work, so if you can learn some programming ahead of time, it may be helpful.

Excel
VBA SQL

Another tip brought up by Jeong is to try to learn and research something about the field that your internship is in, including industry news or some knowledge about the work you'll be doing. When you talk to your colleagues or attend meetings, you want to make sure that you understand what they're talking about. You can learn the professional vocabulary during your internship, but it takes some time. If you can save that time by doing research in advance, why not?

➤ What's the most challenging or strangest interview question that you've been asked?

Devon shares with us his interesting experience about an interview question: "My interviewer asked what my favorite class was, and I said Linear Regression and Time Series. Based on that, he gave me a word problem where I had to figure out what the model was, write out the equation for it, justify my answer and explain how I would prove to my boss that my model was a good one. It was a really challenging question, but my answers helped me get the job."

Another hard question from Lindsay: "I was once asked to explain how I would go about predicting the fuel consumption of America in 2010 (this was in 2009)." This is like a case-interview question. In many cases, you do not have to come up with a exact number necessarily, but rather try to explain and justify how you could reach a reasonable estimation.

➤ What did you do to maximize your internship experience?

Don't wait until work comes to you, you should go out to find your work!

Also, read relevant books or news about the business. Show them that you're constantly learning and attempting to better understand their business and clients.

Also, a very important part of internship experience involves building relationship with your colleagues and bosses. Try to utilize every opportunity to socialize with people in your office. Not only are you able to learn a lot from these people, but this can also help you extend your network which could be beneficial when you are trying to find your next internship or full-time offer.

* Special Thanks to Lauren Baker, Lindsay McDowell, Devon Leann Wilson, Rui Shelly Chen, John Huh, Matthew Garfield. Thank you so much for your help! *

ASC continues

employment opportunities. By the close of the third meeting, a sharp spike in club attendance from last year became evident as an average of 35 to 40 students were seen regularly attending meetings, and the club reached a new total active count of approximately 70 members heading into middle of the fall semester.

As the fall semester progressed, club meetings included several other professional speakers and events. Brian Levine from Aon Hewitt gave a presentation on interviewing tips, while representatives from Fidelity Investments spoke on the role of a pension actuary and the pension valuation process. Meagan Hughes, a UT graduate and former president of the Actuarial Science Club, addressed the club with her colleague, Kevin Connolly. As representatives from Deloitte, they both discussed applying actuarial skills to larger business issues and interacted with members by presenting real life problems seen most often in the field.

Later in the semester, the club collaborated with Juicy Tart, a popular frozen yogurt, to raise additional funds for the year. Also, to maintain its role as a support group for students taking actuarial exams, the club reserved a room in the

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Bulletin Board

Updates of Recent Exam Changes

Exam MLC

Changes are coming to the learning objectives and required readings for Exam MLC, effective with the Spring 2012 exam administration.

The new learning objectives emphasize on models including multi-state transition models, discrete cash flow models, and interest sensitive product cash flow models. Additionally, Poisson processes is no longer listed as part of learning objectives.

For example, here is an excerpt from the new learning objectives that is relatively new to the MLC exam: for the multi-state decrement model, you should be able to describe the model and understand why it is a general model for decrements. Also you need to define the model as a stochastic process and describe how the single decrement on single life models, multiple decrements on single life models, and single decrement on multiple lives models can be represented as multi-state models. Furthermore, you ought to know how the model can be applied to multiple decrements on multiple lives.

For more information and updates for Exam MLC, check out the SOA website.

Exam MFE

MFE offered via Computer-based Testing starting in May 2011, Exam MFE/3F will move to CBT. For the first few administrations, immediate pass/fail results will not be available. Grades for Exam MFE/3F will be released approximately eight weeks after the test window closes.

A formula document can be viewed from the website as well as a normal distribution calculator will be available during the test by clicking buttons on the item screen.

More information and updates on Normal Distribution Calculator and Exam MFE/3F is available on the SOA website.

VEE-Validation by Educational Experience

The VEE requirement is jointly sponsored by the Society of Actuaries (SOA), Casualty Actuarial Society (CAS) and Canadian Institute of Actuaries (CIA). There are three VEE topics:

- Economics
- Corporate Finance
- Applied Statistical Methods

The VEE topics are not prerequisites for the preliminary exams and may be fulfilled independently of the exam process. However, you must pass two SOA or CAS actuarial exams before applying to have your VEE credit added to your record.

You can take SOA approved courses in school or fulfill VEE requirements by taking other online courses.

We encourage you to make the best use of your university experience by taking SOA approved courses in school. A grade of B- or better is required for each VEE approved course. The common approved courses that actuarial students in UT Austin take are shown below:

- Economics:

ECO 304K + ECO 304L OR

ECO 420K + ECO 320L

- Corporate Finance:

FIN 357 OR FIN 397.1

- Applied Statistical Methods:

ECO 341K OR M349R

If you have completed approved courses in college, you may apply for VEE candidate credit by submitting a Candidate Credit along with the required documentation (usually a copy of your certified transcript) and paying the fee requested on that application. The fee is generally \$50 for 1 VEE subject, \$75 for 2 VEE subjects, and \$100 for all 3 VEE subjects. Therefore, it is recommended that you complete all 3 VEE topics before you apply for VEE credit. (most information obtained from the SOA web-

ASC continues

PCL and invited all interested members to attend an Exam P study session, along with providing DVD exam preparation seminars throughout the semester.

With the spring semester in full throttle, club advertisements were again enforced throughout various actuarial courses and even extended outside the actuarial classrooms as risk management professor, Pat Arnold, offered extra credit to her students who attended club meetings. The club started with a T-shirt design contest and an ice-breaker in the first meeting of the spring semester. In addition, the club held a bowling event in early February which resulted in a great turnout as the club attracted ten new additional members for the spring.

As a spring fundraiser, the club sold over 25 baked goods in honor of Valentine's Day in Jester and raised over \$70 through donations as a result of the bake sale. Brian Frost, an actuary from Towers Watson in Houston, spoke on equity valuations during a club meeting, and the club has planned a multitude of events for the rest of the spring semester, ranging from hosting an actuarial exam manual marketplace to featuring speakers from USAA on catastrophe management in the insurance field.

Overall, the club has blossomed substantially over the past semesters and has helped numerous students expand their careers as budding actuaries. The 2010-2011 year has kept this idea in motion, helping students succeed both inside and outside the classroom and fostering the growth of more future actuaries at the University of Texas at Austin.

Dalesa Bady, President