

The $\mu_m\grave{a}\bar{c}tuary$



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Students Rewarded for Captivating Presentations

Over the last few weeks of Actuarial Aspects of Investment Practice (ACT 4060) students held presentations that were collectively a thorough overview of financial history. Presentations ranged as far back as the Dutch Tulipmania of the 17th century all the way to Alibaba's initial public offering last year. At the end of each class students were given the chance to choose their favourite presentation of the day. Winners received a book and a gift certificate to the campus bookstore. On some days the class chose multiple presentations, which left students puzzled with how to split their awards.



Day	Winners	Presentation Topic
1	Nolan	Crash of 1929
2	Yan	Lloyd's of London
3	Myrwyn, Francis, and Thang	Kuwati Stock Bubble, Barings Bank, and AIG
4	Melanie, Michelle, and Erica	Equity Funding Corporation, Madoff Ponzi Scheme, and Bre-X

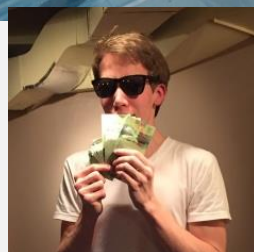
Poker Night

This year's poker tournament was a gruelling six hour affair with Nolan Kennedy eventually placing first – after just learning the rules that day! Others were happy sit out and enjoy the action from afar while hanging out with their classmates.



Poker Results:

1. Nolan Kennedy
2. Tom Bailey
3. Cedric Gousseau
4. Michael Vo
5. Garret Fast

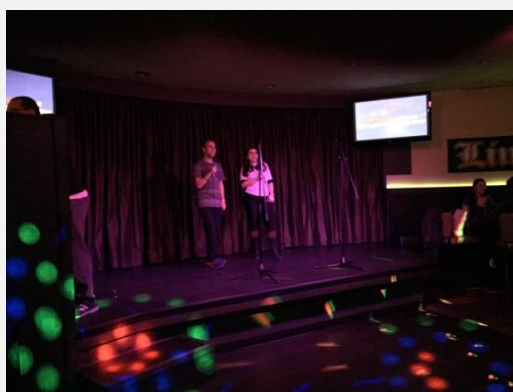


UMAC Consulting wins Munich Re Cup!

Months of preparation paid off for the UMAC case competition team, winning the inaugural Munich Re Cup in March.

Bowling

Once again, the UMAC Bowling event was great fun! Good bowling, good popcorn, and even better nicknames. Academy Lanes never fails to offer an exciting atmosphere for friendly competition. The only downside to this event was a sticky paddle on the pinball machine, which made handling a multi-ball situation very difficult.



Karaoke

UMAC tore up the karaoke stage at limelight singing classics by Queen, Elton John, Maroon 5, and many more. The bingo was also a new experience for most, some of whom took home exciting prizes! The party went well into the night as some UMAC members were actually Limelight regulars!

UP NEXT

Wind-up BBQ

Already touted as THE party of 2015, UMAC holding a barbecue style wind-up on April 25th. View the invitation email for details and please RSVP to jordanigerry@gmail.com if you are planning on attending.



FOLLOW UMAC ON TWITTER FOR ALERTS ON UPCOMING EVENTS: @UMACEXEC

&

REQUEST TO JOIN UMAC'S FACEBOOK GROUP: UNIVERSITY OF MANITOBA ACTUARIAL CLUB 2014-2015

Jordan Gerry**Co-President**

Hi everyone! My name is Jordan Gerry and I am happy to be one of this year's UMAC Co-Presidents. Our goal for this year is twofold: increase professional development opportunities while further developing social activities. Next year, we will be hosting the first UMAC Case Competition, catering to all levels of actuarial experience. Additionally, we are busy working on an online forum for students to discuss different problems they may have, and for alumni to reconnect after graduation. Over the next year, UMAC is happy to team up with different student groups to increase event turnout and to increase variety of social events. In particular, UMAC is a proud supporter of the STAG olympics initiative, but more on that to follow. Outside of school, I love rock climbing, which I spent last summer doing in BC. If you have any questions, or want to get involved please don't hesitate to come up to me in the halls and say hi! I am looking forward to another wonderful year!

**Stuart Tisdale****Co-President**

Hi UMAC, my name is Stuart Tisdale and I'm excited to be spending another year helping run our fine club. UMAC has some ambitious goals for next year so I was very pleased to see how many passionate students came out to vote at the elections. It is clear that UMAC members expect the best out of this club and that is what our executive team is aiming for.

This summer I'm hoping to finally improve my golf game, and spend as much time as I can sailing and exploring Lake of the Woods. I will be spending most of the summer working at New York Life and I'm hoping to take in one of Jon Stewart's last episodes on the Daily Show while I'm there. I'm looking forward to getting back together with everyone in the fall!

**Devin Kinley****Promotions Coordinator**

Hi UMAC! My name is Devin Kinley and I'll be your new Promotions Coordinator. First I'd like to thank Michael Etkin for doing a great job this year as the Promotions Coordinator. I want to lead by example by doing great high school presentations and planning fantastic UMAC events. This year I really want the UMAC members to get more involved. So if you want to co-present with me at your old high school or just help with something else in UMAC, contact me at 1-204-894-9283 and we'll get you more involved. Good luck on exams and I look forward to hearing from you guys!

**John Cleodoro****Communications Chair**

Greetings and salutations UMAC, my name is John Cleodoro, often referred to as J.C. and I am looking forward to being your Communications Chair for the 2015-2016 year. I will be in charge of the newsletter as well as any social media to help keep UMAC members updated, so hopefully I can get you to read everything. I look forward to finding out what everyone wants to read and I'll try my best to write it in. I am planning to write some exams and chill for the summer. Outside of school I teach music, work out, play games, and listen to a lot of music. If you play DotA2, CS:GO, SC2, or Super Smash bros Melee or need new music hit me up. I am always free to talk to and would love to meet everyone in UMAC, have an exciting summer.

Cedric Gousseau**Third Year Representative**

Hey, my name is Cedric Gousseau and I'm excited to be next year's third year rep! I'm finishing up my second year of university at Asper and will be spending my summer interning at Great-West Life and writing two exams before starting out in this role. In my free time I like playing squash and hockey, skiing and traveling - feel free to stop me in the halls to introduce yourself, to ask any questions you may have, or even just to practice your French... I'll be responsible for the mentorship program, speed interviews, interest theory study sessions, pancake sale, and the kick-off BBQ, among other things. In case you haven't realized, you've joined what's most likely the best actuarial student group in Canada. Take advantage of this by attending these valuable events and meeting your future colleagues - don't underestimate the degree to which mentors can impact your career prospects!

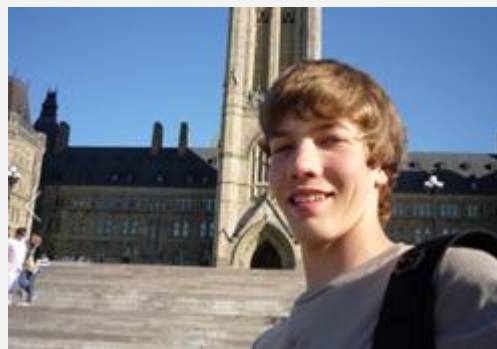
**Cam Bredin****ASNA Representative**

Hi my name is Cam and I'm going to be the ASNA rep for 2015-2016. Really excited to have this position and look forward to everyone who comes out. In my spare time I like to play and watch hockey and soccer and am actively involved in my local church. I like to go to the gym and hang out with my friends, but also like to spend quiet nights in with just me and my calculator!

Hope to see everyone out at some of UMAC's events!

Nolan Kennedy**Treasurer**

Hello UMACtuary readers! I'm Nolan Kennedy and I'll be UMAC's treasurer for the 2015-2016 year. This summer, I will be working at Manulife Financial in Toronto. I'm excited to figure out what it's like to work and live in Canada's largest city. As a youngster I had a deep fascination with tall buildings, but growing up in Manitoba severely limited my ability to indulge in such marvels. Finally I'll be able to visit the CN Tower and other notably tall Toronto landmarks. Hopefully I don't develop a fear of heights. I wish you all a great summer and encourage everyone to try something new. I suggest paddle-boarding; it's surprisingly fun.

**Sean Seavers****Secretary**

Hey UMAC, I'm Sean, but you can all call me "Michael Vo 2.0". As Secretary, I'll be in charge of the website and the UMAC email list. I am a former business data analyst at Statistics Canada, and a future actuarial intern at Allianz Life. Next year you can find me...

- Eating breakfast at the St. Paul's Cafe
- Making hardcore gainz at the Active Living Centre
- Posted up in the UMAC office doing what I do

Feel free to approach me with any questions you have about anything at all or just to say hi. In all honesty, I'm extremely excited about the year to come! Hope to see you all at the BBQ, Fish Dinner, UMAC Pub Crawl, Excel Workshop and of course the annual UMAC Paintball Deathmatch.



Exam Spotlight

Exam MLC

Dates offered	This exam is offered twice a year (April and October)
Registration Deadlines	Registration for the April sitting has closed
Exam Format	Roughly 40% multiple choice and 60% written answer
University Course	ACT 3630 Models for Life Contingencies
Recommended Study Manual	Some students prefer ASM (longer) and some prefer ACTEX
Effective Passing %	50.2%*

*Percentages based on October 2014 Examination Results

Recent Changes

As many of you know, the SOA recently added a written-answer portion to Exam MLC. Here are some of the facts.

--Multiple-choice questions are expected to be more straightforward and may require less time per question than previous MLC exam.

--Grading: Only exam takers with scores above a certain threshold will have their written-answer portion graded. In the sitting for this past spring, 12 out of the 20 multiple-choice questions had to be correct for the written-answer portion to be graded. It is expected that well-prepared candidates should meet the multiple-choice threshold.

Advantage for us! We can receive partial credit for written answers and it helps us prepare for the format of FSA exams.

Why did they decide to change it? This way the exam can:

- Test at higher cognitive level
- Be better at testing our understanding of the subject matter
- Include multi-step problems in written answer questions

Advice:

- Read the "Guide to Written Exams" on SOA website
- Pay attention to the verbs - they indicate the type of response expected
- Pay attention to the point values - they indicate how much time the committee expects a candidate to spend
- Show your work, but don't write more than necessary

More?

For more information on exam MLC visit
<https://www.soa.org/education/exam-reg/edu-exam-m-detail.aspx>

Internship Profile

SHAUI CHEN



Hey UMAC members! My name is Shuai. In the winter of 2014, I was fortunate enough to have the privilege of working at Sun Life Financial (Sun Life) in their Toronto office. Sun Life is a leading Canadian-based international financial services company, helping customers achieve lifetime financial security.

I worked under the Defined Benefit Solutions (DBS) - pricing team. So what is DBS? At the core, DBS helps Defined Benefit (DB) plan sponsors to de-risk pension plans by using our comprehensive investment and risk management expertise. We partner with plan sponsors and consultants to provide customized solutions that reduce DB plan risk. We help manage risk with a full range of de-risking products to meet the different needs of our clients.

The pricing team is responsible for preparing group annuity quotes, conducting quote analysis and supporting other pricing projects. This was a great opportunity to gain extensive knowledge about the Canadian annuity market and pension de-risking business (as well as enhanced my understanding of Life Contingency!). Interns are assigned a lot of responsibility to help us learn and improve at Sun Life. I was not just involved in the pricing process; in fact, I was given the opportunity to complete most of the important steps of the pricing process.

Sun Life has a well-established actuarial internship program; there were 11 interns from different universities across Canada working over the winter. Sun Life also planned a lot of fun events such as the post-exam celebration, wellness challenge, as well as lunch & learn. What I enjoyed the most about my time at Sun Life were the learning opportunities. Part of these included 'Coffee Chats', where the interns would meet up with managers from different business units and have the opportunity to get to know them and ask questions. I participated in Coffee Chats with each co-op manager at the company. It was very beneficial to hear about the business challenges and innovations from the perspectives of different managers. I became socially-engaged with people from the actuarial community and I've learnt a lot from them. I even have met the President of Sun Life Canada and the Chief Actuary at one of our monthly meetings.

Outside of work, living in downtown Toronto was a fantastic experience. There was a lot to see and experience, such as great restaurants, sport games, museums and cultural events. Having an internship out of town allowed me to learn a lot about myself, as well as grow into a better person.

I really enjoyed my experience with Sun Life and I would highly recommend it to all of you!

A Conversation with Edward Swerhone

Edward Swerhone is a University of Manitoba graduate with over 25 years of experience in actuarial work. He started his career at Crown Life, before moving to Manulife Financial and eventually to Sun Life Financial. He works in the Toronto corporate office and is responsible for overseeing actuarial reporting, global product governance, capital management, and financial solvency stress testing. Recently, he was kind enough to share his extensive experience with *The UMACtuary*.



Edward began by elaborating on what led to him joining Sun Life. He explained it as a combination of his situation and the opportunity that Sun Life presented him. "I had already spent 10 years working in product development, sales, and marketing. Sun Life had an opening that was an ideal role for me," he said. "It was a growth opportunity and it allowed me to leverage the skills that I had built up." He described Sun Life as a collaborative environment that emphasizes teamwork. He cited this team focus, a variety of challenging roles, and a comfort level working for a big company in a time of consolidation as factors that have since kept him at Sun Life.

When asked what main qualities have helped him progress through the ranks at Sun Life, Edward offered three responses. The first is being well rounded; this is a product of his years serving in many different actuarial roles. "Having a broad range of experience will allow you to move from one opportunity to the next," he said. He credits communication as another key quality for a successful actuarial career. "You need to be able to communicate your ideas. It hurts you when you're unable to properly communicate those ideas," he explained. Lastly, he listed creativity. "I know it sounds unusual coming from an actuary," he began, "but if you're in a business situation and you're trying to solve a problem, you have to be able to come up with a creative solution."

One unique part of Edward's experience at Sun Life is the eight years he spent as Vice-President of a group of internal consultants. This team was created to support actuarial work in various departments throughout the company such as conducting peer reviews and completing experience studies. The drive for this team arose after a merger with Clarica in 2001. "It was felt that we had more actuaries than roles, but there was also a sense that there was more work to be done," he said. He admitted that starting the consulting group required a culture shift within the actuarial leaders. Eventually however, they found it to be very successful in addressing temporary shortfalls within a business group. Temporary shortfall can occur when a department, which is staffed according to its goals for the current period, encounters an unexpected event. "What we found with the actuarial consulting group is that a department may have the budget for (a certain project) but they don't have the resources for it," he explained. "This gave them an opportunity to have someone familiar with Sun Life's practices and policies come in and execute a review, build on a product line, or just pitch in." He stated that all ideas like the consulting group go through a thorough evaluation process but he believes that this is a good example of the wide array of unique opportunities available at Sun Life.

From there Edward answered questions about some of the major issues in the life insurance industry and how they have been affecting the departments that he oversees. Low interest rates present a "huge challenge," as Edward put it, for life insurers. A typical life insurance product has an influx of cash at the beginning of its life cycle, which is invested so that insurance companies can pay off death claims or surrender benefits later on. When interest rates are low, the insurers receive lower returns on their investments and struggle to maintain profitability. Edward presented three ways life insurers are currently coping with this problem. The first is moving to products with fewer guarantees. "Products used to have a 4% minimum interest rate guarantee. Those days are long gone," he said. "You're looking for an opportunity to develop a product that provides value, where there are less guarantees." Another way to cope with low interest rates is by looking at a broader supply of alternative investments. "You can't solely rely on corporate bonds anymore," he said. A third strategy is

to have features in the product that are more responsive to market interest rates. An example of this would be a savings plan with a guaranteed interest rate that is a function of the government interest rate.

Another key issue is the ongoing changes being implemented by regulatory bodies including the Office of the Superintendent of Financial Institutions (OSFI). Edward's work in capital management includes looking for opportunities to improve Sun Life's capital position. This requires frequent rebalancing as OSFI regularly updates the regulatory capital rules. For example, OSFI may impose different capital requirements for different bonds. If Sun Life believes the requirements are too high for a certain type of bond relative to the return it provides, they will look to move into alternatives. Another aspect of ongoing capital management is enhancing shareholder value. This means ensuring that shareholder capital investments earn a reasonable return. "We look for opportunities where we think there is comparable value and avoid situations where we think the requirements are too strict," Edward explained. "We want to optimize the level of capital and maximize returns."

Current developments in the international reporting landscape are another element that Edward monitors. There is currently a great deal of focus on finalizing the terms of International Financial Reporting Standards (IFRS) 4. A new set of global accounting standards means that actuaries will have to update the way they calculate reserves and liabilities. This is nothing new to Edward, who has watched this discussion play out for over a decade. "It has been going on for well over 10 years. It's close, which doesn't mean anything because they have been close before." He believes that there is a sense of urgency to get something completed with an implementation date still five to six years out. "It will have an impact in terms of how companies report income, how companies determine their liabilities, and the type of products sold. It's fairly broad," he added.

Perhaps the largest change occurring in the insurance industry is the current shift in demographics. Edward identified four key components that are shaping the future of the marketplace. The first challenge is selling to a younger generation that has grown up in the online age. "It's a challenging role to reach out to that group," he said. "The traditional sales approach using current distribution channels is challenged." Adding to this, over the last decade Canada has seen a shift towards less government services associated with pension plans and insurance protection. "When you have less government services, people become more self-reliant." He lists disability insurance and medical care as examples of products consumers are beginning to look for independently. The decrease of defined benefit pension plans has also increased this self-reliance by encouraging people to be responsible for their own retirement savings. "That's another opportunity, from an insurance point of view, to provide vehicles for people to save." Finally, longevity risk creates some problems and opportunities for insurers. This issue is gaining relevance as life expectancy is increasing globally. For example, a life annuity sold to a 60 year old retiree might have 25 years of expected payments. If that person ends up living for 30 more years, these lengthened costs could wipe out any profits. Sun Life sees a way to turn this issue into an opportunity for new business. "My colleagues in the Canadian operations closed the first longevity insurance deal with a pension plan in North America." In a simplified scenario of longevity insurance, the pension plan would lock in a certain amount of payments which it would pay to the insurer. Then the insurer would take on the longevity risk and make the actual payments to the retiree. If properly established, this strategy can be used to hedge longevity risk faced by pension plans.

With the level of change that is evident across the industry, it's fair to say that the actuarial profession requires a commitment to career long learning. Conversations like these reaffirm how much there is to learn about the career path, and how much someone can achieve with ample motivation. It is clear that this kind of forward thinking is valued at Sun Life, and has led to the success experienced by Edward and many of his colleagues.



LAST EDITION'S ANSWERS

PUZZLE 1:

Solution: Need to find LCM

$$10=2 \times 5 \quad 9=3 \times 3=3^2 \quad 8=2 \times 2 \times 2=2^3$$

$$7=1 \times 7 \quad 6=2 \times 3 \quad 5=1 \times 5$$

$$4=2 \times 2 \quad 3=1 \times 3 \quad 2=1 \times 2$$

$$1=1 \times 1$$

$$\text{LCM}=2^3 \times 3^2 \times 5 \times 7=2520$$

Smallest number of possible coconuts in the pile not counting the monkey's coconut: $2520-1=2519$

PUZZLE 2:

B_i - boy born on i th day of the week $i=m,t,w,tr,f,st,s$

BB: BtBm, BtBt, BtBw, BtBtr, BtBf, BtBst, BtBs 7

BmBt, BtBt, BwBt, BtrBt, BfBt, BstBt, BsBt 7-1=6 (since double counting the BtBt)

BtG: also 7

GBt: also 7

Number of way to have at least 1 boy= $7+6+7+7=27$

$$P(2 \text{ boys} | \text{at least 1 boy}) = \frac{N(2 \text{ boys, at least 1 boy})}{N(\text{at least 1 boy})} = \frac{7+6}{27} = \frac{13}{27}$$

PUZZLE 3:

Top letters: 3 lines

Bottom left letters: 2 lines

Bottom right letters: 4 lines

Question mark is W

LAST EDITION'S WINNERS



The winners of the final Diversions Challenge of the year are: Kelly Ramsay, Joiely Evangelista, Joyce Calderon, and Bryan Luc.



Habits for a Productive Lifestyle

By Stuart Tisdale

Have you ever felt like you could be achieving more? You are a very busy person being stretched out by multiple priorities, but you feel like you are not reaching your full potential. If this sounds familiar, try incorporating the following habits into your life.

Know Your Purpose

Before you can begin your journey for superior productivity you need to determine what really matters to you. Start by acknowledging the important aspects of your life and establishing roles for yourself. For instance, many of us are students, employees, leaders, friends, and so much more. For each role define your purpose and establish what you are working towards. Creating this mindset will help you focus on your main goals and spend less time on the unimportant.

Game Plan

Now that you have identified your roles, take time to sit down and write out a game plan. Each week, think about what you need to get done and schedule time for yourself to accomplish it. Your game plan should include all relevant deadlines and goals you have set for yourself. Writing down your goals helps solidify your commitment to achieving them.

SMART Goals

Here's the catch: not all goals are created equally. Goals should be specific, measurable, attainable, results driven, and time bound (SMART). An example of a bad goal is to study for Interest Theory. How do you know when you have completed this goal? Vague goals often get pushed aside when things come up and result in lesser outcomes. Examples of SMART goals are completing sections five through seven of your textbook by Friday, or going over 3 practice exams this week.

Accountability

Once you begin setting goals for yourself you need to come up with a way to hold yourself accountable. Review your game plan at the end of each week to see what goals you have completed and what you struggled with. Measuring your progress will motivate you to stay on target. Another strategy for accountability is to partner up. Find someone who shares your desire for productive living and meet regularly to talk about goals and reflect on progress. Setting goals with a friend will increase your motivation and you will begin to feel added importance around not letting someone else down.

Recharge

The last step is to nurture your brain. If you try to operate on full efficiency all the time you will burn out and become frustrated. Taking care of your brain often means taking breaks so that you come back feeling recharged. One strategy is to simply move around. After sitting down for hours during binge study sessions, people start to get frustrated and hit the wall. It helps to take a break and go for a walk to clear your brain. Often you will return better able to have that eureka moment and solve what was bugging you. Other keys to brain health include proper exercise, diet, and sleep. Lastly, human interaction plays a role in recharging your brain. Even during exam period it can help to plan in breaks to socialize. This can help you reduce stress and feel better.

Note: Some of the ideas in this text were derived from the book "The 5 Choices" produced by the company Franklin Covey. My own views are added to tailor to a student perspective.