

THE ACTUARIAL SURVIVAL GUIDE

Edition 2

THE UNIVERSITY OF MANITOBA ACTUARIAL CLUB



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INTRODUCTION

PREFACE

By Cédric Gousseau

If you've ever read *the Adventures of Tom Sawyer* as a kid, you may recall the scene where Tom is lost in a dark cave. The novel describes his feeling of a lack of direction – an inkling that finding light was a futile pursuit at times. Suddenly, Tom comes to the realization that he was carrying candles in his back pocket all along. The candles allowed Tom to gain a greater awareness of his surroundings; it helped him avoid bumping into obstructing rocks, it guided him in the right direction, and it ultimately led him to finding the light... Think of the Actuarial Survival Guide as the candles that you carry in your back pocket. The light, under this analogy, represents the overarching goal that unites us all – landing a full-time job.

This guide will oscillate between absurdly analytical and gutlessly straightforward. It will even challenge the bounds of political correctness at times. We wanted to write this guide in the same way we would give advice to a close friend.

How to Use This Guide

By Cédric Gousseau

I would recommend reading the guide all at once *right now*, perhaps while skimming the sections that don't apply to your situation. This will provide you with a solid roadmap and plan to help guide you through your university journey. So sit somewhere comfortable, grab a big ole' cup of coffee, and get ready to start mentally drawing your actuarial roadmap!

Oh, and just as Tom Sawyer's candles occasionally ran out and needed to be replenished, you will find that the knowledge you've absorbed through the first read of this guide will eventually begin to fade. For the reason, it is imperative that you revisit the guide periodically, when needed. This is a concept called Just-In-Time learning. Under this philosophy, it is thought that the optimal time to learn something is *right before you need to use the knowledge*. For example, you may want to open up this guide before you sit down to write your cover letters.

NOTE: EDITION 2

By Katherine Stobbe

This Second Edition has been a long time in the making! The actuarial industry is always changing and evolving, which means specific advice and logistical information might not always stay relevant and applicable. However, overarching themes and ideas remain the same and just as important as ever.

With the ever-changing SOA preliminary exams, we decided to split the guide into two parts. Part 1 will include job and industry related information, while Part 2 will solely focus on exams. This will allow the exam section to be updated more frequently to ensure UMAC is getting up-to-date information.

While editing Edition 2, we tried to keep as much of the original guide as possible. Since we have many more contributors this time around, we have listed each authors' name as a subtitle for each subsection. All of this being said, Cedric and Devin's initial points and tips are vital for students to be successful in university and the profession as a whole.

YOU ARE AN OPTIMIZATION PROBLEM

By Cédric Gousseau

People define success in this program in different ways. Many students consider the ultimate victory to be landing their dream job after graduation. Others measure it based on how much fun they've had. Let's hope it's a combination of both of those things.

Some believe that in order to land your dream job, you have to be smart, or inherently talented in some way – working hard is secondary. But a glance at the following (mathematically proven) 3-D graph should shed light on this fallacy.

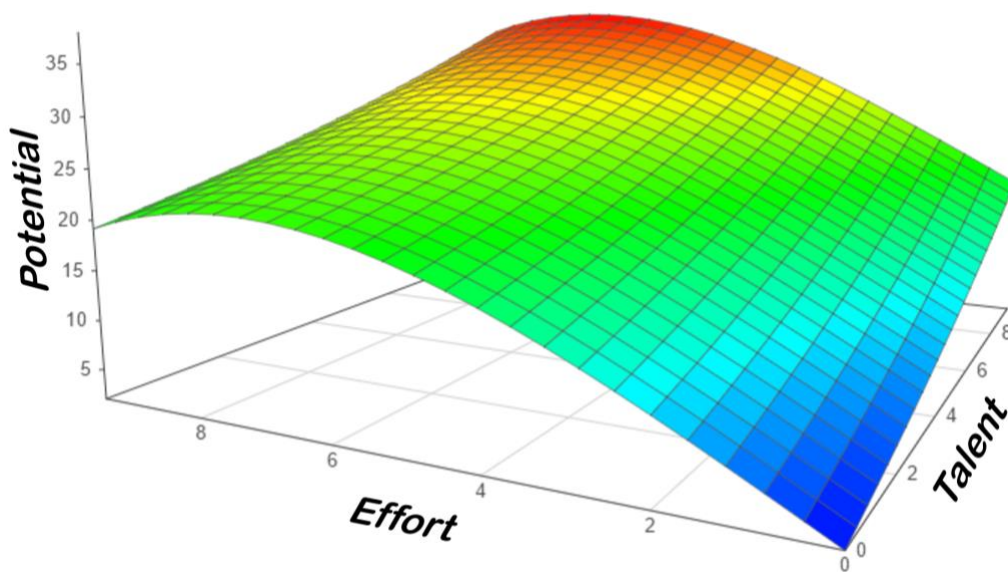


Figure 0.1 The effect of effort and talent on an actuarial student's potential

Ok, after you've finished chuckling about the ridiculously analytical nature of this graph, try observing all the characteristics of this 3-D curve. One thing you'll notice is that hard work has a much greater bearing on success than inherent talent. That is the beauty of the actuarial profession – regardless of inherent ability, you can achieve success by working hard and focusing your energy in the right areas.

Also, observe the stooping nature of the curve on the left-hand side. This shows that there is such thing as working "too" hard – that is, too much effort may result in decreasing success after a certain point. If you devote too much energy to things like studying, you'll be missing out on *fun*,

thereby making you less “successful” in the broader sense of the term. Anyways, you are an optimization problem – so optimize yourself!

Oh, and by the way, one key factor was intentionally left out. That is, your potential is determined by something other than effort and talent – can you guess what it is?

Well, if your potential were a mathematical equation, it would probably look something like this...

$$\text{Potential} = (\text{Effort})^x \left(\frac{\text{Inherent}}{\text{Talent}} \right)^x \left(\text{\textit{The right tactics and strategies}} \right)$$

This guide can’t make you work harder though. And as far as I know, electronic PDFs can’t alter your DNA. What this guide *can* do though is equip you with the right tactics, strategies, and shortcuts that help you maximize your potential, while maybe even decreasing the work you may need to put in. Here’s how the Actuarial Survival Guide fits into the equation:

$$\left(\text{The right tactics and strategies} \right) = \int_{\text{First day of uni}}^{\text{Today}} \left[\left(\frac{\text{Univsersity}}{\text{experience}} \right) + \left(\frac{\text{Mentorship}}{\text{relationships}} \right) \right] dt + \left(\text{\textit{The Actuarial Survival Guide}} \right)$$

So hopefully now you’re at least somewhat sold on reading the rest of the Actuarial Survival Guide. Or not. Either way, you’ve read up to this page so that’s a good sign.

SECTION ONE

LANDING YOUR DREAM JOB

INTRODUCTION

By Cédric Gousseau

The Goal –A common fallacy is that every time you get a job offer, you're taking a job from somebody else. The reality is that if more people from University of Manitoba meet the standards, *companies will extend more offers*. The ultimate goal for this section is that every U of M gets a job offer, or at least that we move in that direction.

Defining the enemy – If I want everyone to get a job, who are we taking these jobs from? In short, other schools. Most notably, let's take jobs away from those Waterloo shmucks (WS). If WS are the enemy, how do we outdo them? By becoming *excellent* at the key steps in the recruiting process;

1. Crafting a cover letter
2. Writing a resume
3. Attending info sessions
4. Interviewing
5. Sending follow-up emails

This process is reminiscent of the TV show Wipeout. Every step presents an obstacle. Even if you made it past the first three obstacles, you can get knocked down by the interview and get eliminated. All your previous efforts go down the drain. Therefore it's important that you do your very best in all five areas. Let's look at how to become *excellent* at each of these steps.

1. THE COVER LETTER

By Cédric Gousseau

There is no prescribed method to crafting a cover letter. In fact, unique formats can make you stand out from the crowd. However, there are several components that make up a strong cover letter, regardless of format. I think the best way to illustrate these components is through an example I made (next page).

By the way, if I were to self-assess that cover letter, I'd give it an 8/10ish. Although it's well-written and has all the crucial components of a good cover letter, it's a little too wordy and contains some extraneous information.

As you read through it, read the notes corresponding to the circled numbers.

Dear _____,

1 It is with great enthusiasm that I express my passionate interest for a co-op actuarial internship at _____, as advertised through the Asper School of Business Career Development Centre. I have spoken
2 to several students and graduates who have had work experiences at _____ and it is clear that your organization's zest for innovation, dynamic workforce, and vibrant work environment are unparalleled. In particular, I am highly attracted to how _____ actuaries are actively involved in
3 many aspects of the company's operations, including product design and innovation. After learning about your company's reputation as one of the world's most admired companies in 2015 by Fortune magazine, opportunities for growth and development, phenomenal company culture, and financial strength, I am extremely interested in joining the _____ team.

4 I strive for excellence in my work performance, leadership initiatives, and academic life. I have proven leadership capabilities, exemplified by my success as the _____ on the _____, and as the _____. Additionally, _____ in my fourth and final year.

5 As an actuarial intern this summer, I was curious to uncover why I was working on certain projects and how my work tied into the company's strategic objectives. Asking questions helped me develop an understanding of the big picture, and a greater sense of the evolving role actuaries play in life insurance companies. As a forward thinking individual, I believe that understanding why a company undertakes a project and how it impacts other divisions is important to the success of the project.

4 With a proven track record as a high performer, I am a smart creative with solid analytical and computer skills, complemented by strong interpersonal skills and a curious mindset. Most importantly, I have a
6 fervent desire to grow professionally and believe I have the potential to become the actuary you are looking for in the future. I am very inclined to relocate after I graduate in May 2017 and have aspirations to pursue a career at _____.

7 I would be very enthused to meet with you to further discuss opportunities at _____. Thank you for your time and consideration.

Sincerely,

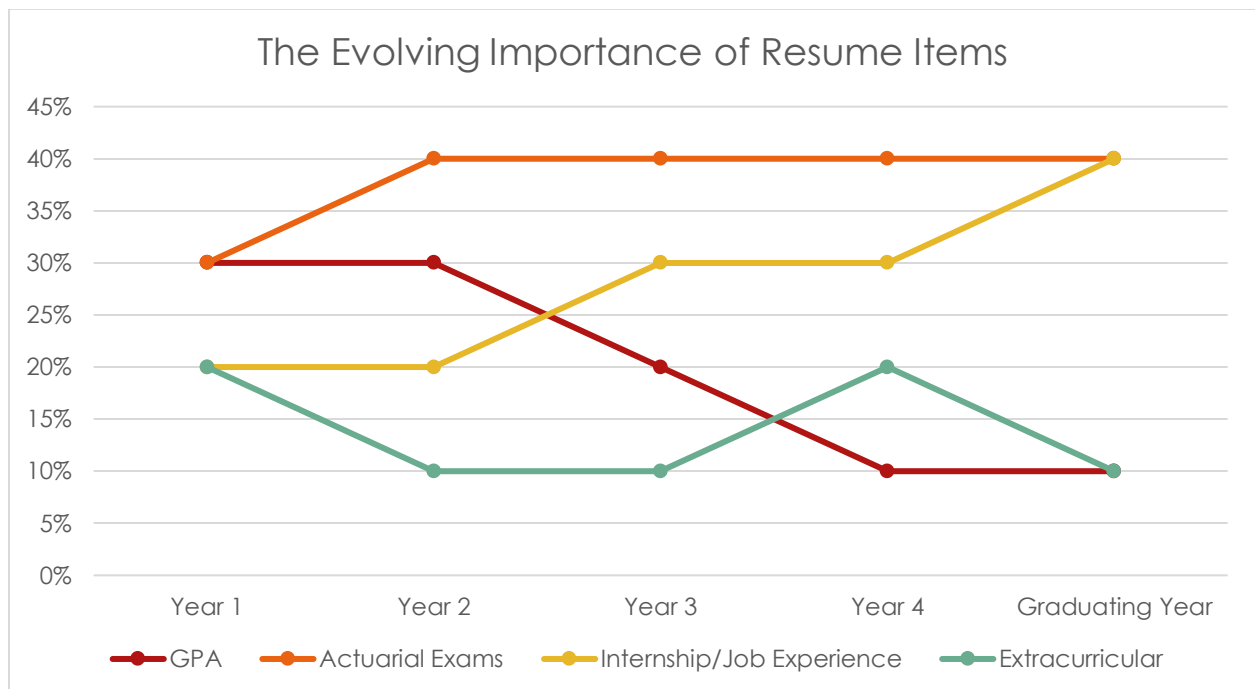
1. Display your *enthusiasm* for the company
2. If you know anyone who has worked at the company, use this to your advantage – this shows that you're interested enough to speak with a past intern about the company. You may even want to mention their name.
3. Demonstrate your *knowledge* of the company. This shows that you've taken the time to research the company, and they greatly value this.
4. Brag. Humility has no place in cover letters. Tell them straight up why they should want you.
5. You could expand on one of your notable strengths. This one isn't necessary at all – in fact, I think this section is redundant and probably a weak spot in my cover letter
6. Include any other information that makes you a more attractive candidate. If you are applying to an internship outside of Winnipeg, you can mention that you are willing to relocate after graduation (if this is true), which can make them view you as a better long-term investment. Or, if you currently have no exams passed, you can use this opportunity to say that you are planning to sit for an exam at a specific date.
7. Pretty self-explanatory I think!

2. THE RESUME

By Cédric Gousseau with updates by Katherine Stobbe

This is the meat and potatoes of your application package. The actual content of your resume is far more important than the way it is formatted, so this section will look at content exclusively. If you're in need of help on how to make your resume *look pretty*, I'd recommend booking an appointment with the Career Development Centre.

Alright so to simplify, the strength of your resume can be determined by four main factors. Here's the estimated importance of these factors and how they vary over time.



Keep in mind the inherent subjectivity of this graph. However, despite the roughness of these estimates, they can give you an idea about where to focus your energy. If you find that you are weaker in any specific area, you may want to take action in order to balance out your resume. For instance, if your extracurricular section is lacking, get involved with UMAC! ;P

It can also be useful to look at the trends here. For instance, notice the decreasing importance of grades. This highlights the importance of clutching a high GPA early on in your university career. Also note the increasing importance of exams and internship experience. This highlights the importance of starting your exams early and trying to find internships as soon as possible.

3. ATTENDING INFO SESSIONS

By Devin Kinley with Virtual Info Session tips by Katherine Stobbe

WHAT TO EXPECT

For those new to the info session scene, these employer-sponsored networking events are a platform for companies to sell themselves to you. Conversely, making a good impression can give you bonus points to help you get to the interview stage. There is basically no downside risk, so attend as many as you can.

The average info session will consist of a 30 minute presentation about the company and an hour or two of networking (and maybe food & drinks!). The dress code is typically business casual (dress shirt, pants), though you won't feel overdressed if you throw on a suit.

As for the social layout, there will typically be one employer in a circle surrounded by 2-10 students. The larger circles don't really feel like a normal conversation but rather like a question period at a presentation. Students will take turns asking questions and the employer will elaborate on an answer. The smaller circles (which you should aim to be a part of) are much more like a conversation.

Virtual Info Sessions generally take place over Zoom or Microsoft Teams. They will follow the same format of presentation followed by networking. Most of the time, networking will take place in breakout rooms, where the employers will all rotate between rooms of 4 or 5 students. Sometimes, employers will have predetermined questions for the students in the room, and other times it will be more casual! The "Large Circle" tips are great for more formal breakout rooms, and the "Small Circle" tips are useful for a casual breakout room. You'll be able to decipher which type of room you're in pretty easily!

On a few occasions, employers have not had breakout rooms, and questions are pre-submitted by students or typed into a chat function and answered in front of everyone. This is definitely the most nerve-wracking style of Info Session! Try to come up with unique questions based on the presentation they provided (Hint: "How many exams are required" or "What type of technical skills should I learn" are probably NOT creative questions). Companies will be taking note of who is talking and asking questions.

If done correctly, going to info sessions can dramatically increase your odds of getting an interview, especially if you can demonstrate two major things:

1. Your desire to work for the company
2. Social skills

So how can one convey these two messages?

LARGE CIRCLES

Having a good conversation with an employer is much easier than you would think, especially in a large circle. It can help to come prepared with a few memorized questions that you could ask any employer. Ex: "What do you do as an actuary?". This isn't rocket science; just have a

number of conversation starter questions and flow with the conversation. The best thing about the large circles is when you ask one question, the employer will speak directly to you for a couple of minutes. The employers are talking 95% of the time; all you need to do is ask some questions so that the employer spends all that time speaking directly to you. This will result in you demonstrating social capability and you will be significantly more memorable to the employer. Being more memorable will increase your chances of receiving an interview and, when you do give an interview, the ice will have already been broken at the info session.

SMALL CIRCLES

Small circles are much harder than large circles, however when the opportunity presents itself you should always move towards smaller circles. Smaller circles are much more like a normal conversation and are a great opportunity to create a real relationship with an employer. Remember, employers aren't just looking for the most intelligent and strongest candidate, they are also looking for someone they can have a good conversation with by the water cooler. The only reason small circles are harder is because you can't fake being a good conversationalist here, you must actually converse with the employer.

ADDITIONAL TIPS

- Speak to as many employer representatives as possible. Some companies, like Sun Life, will record how many people you spoke to.
- Try to find out who is doing the interviews and who is making the hiring decisions.
- Try not to "talk shop" (talk about working) all night. That being said, you should feel the conversation and decide where to go with it. Some employers only want to talk about work
- Don't be fake
- If you are trying for a job outside of Winnipeg, express your desire to move (if it's true). The main concern for these companies is that they will invest in you as an intern but you will never return for a full-time position
- Try to be one of the last people in the room but not the last one. The longer you stay, the more people leave and the smaller the circles get making you much more memorable. However, if you are one of the last 5 people in the room the employers may start to resent you because you are keeping them from going home.
- Never talk about salary
- Never self-deprecate (unless this is done with a humorous intention)
- Never speak ill of any individual or company

4. MASTERING THE INTERVIEW

By Devin Kinley

If you've landed the interview, you've been passed the basketball. Nice. Many people, when they reach this point, decide to simply pull up and shoot. What they don't realize is that they're firing *from way beyond the arc over multiple defenders*.

What they should be doing first is take a defender "iso" and advance as close to the basket as possible. And that comes with *interview preparation*. If you've prepared well and you are using the right tactics, you might even be to blow by your defender and position yourself for a layup.

Keep in mind that the job offer will not go to the individual who is best at performing the job. The job offer will go the individual who *does the best interview*. Historically, this is where U of M students have had an advantage over WS.

PREPARATION

Interview preparation is where you have the greatest control. Many students neglect this part of the process, opting to rather expend all their energy finding the perfect font for their resume. Don't be one of those students.

Ideally, the first part of your preparation should start even before you get asked for an interview – you should try and connect with your interviewers at the company info session or at the Fish Dinner. Not a necessity but a nice bonus!

Now, it is important to prepare for common interview questions. Go through a list of common questions and form a response in your head for each one. The CDC has a decent list for this purpose. If you are unclear as to how you'd answer the question, it might be helpful to brainstorm and write down what you'd like to say.

Next, develop your anecdotes. Interviews these days will typically have a few behavioural questions, à la "Tell me about a time when...". I think it's a pretty terrible way to evaluate candidates but I guess that's just how the cookie crumbles. Just as you can classify virtually any Hollywood movie into five generic plots, you can classify behavioural questions into approximately five main categories.

1. Leadership
2. Prioritization/Time Management
3. Decision Making
4. Problem Solving
5. Communication

If you think of at least one personal anecdote in each of these categories, you'll be armed for virtually any behavioural question.

It is also crucially important that you research the company for which you are interviewing. Look up their mission, values, key facts, maybe even see if they've appeared in the news recently for

any reason. If you really want the job, you may even want to spend hours doing this type of research.

Finally, prepare your end of interview questions. Interviewers will always ask you, at the conclusion of the interview, whether you have any questions for them. The worst response you can have is “no”. Prepare at least two or three questions that demonstrate your knowledge and interest in the company. Bonus points if you can ask a question based on something they've said in the interview.

THE INTERVIEW

I'm going to skip over all the basics such as “give a firm handshake and look the interviewer in the eye” – if you're looking for the fundamentals, one word: Google. But beware, I find that most of the advice doled out by the internet is garbage. Instead, I'll share with you two of my most potent tips.

One of my favourite tactics is to ask questions *throughout the interview*. This can be useful as it demonstrates that you've been paying attention and that you can process new information quickly. Portraying this “hard to get” attitude can offer many benefits, but should only be used if you're feeling very confident.

At the end of the day, as cliché as this may sound, I really do think it's best to be your authentic self in the interview. Yes you should definitely prepare, but faking it won't get you too far. And there's science to back up that assertion. When you try to put on a face, you need to match your body language to the words your saying. So you find yourself expending energy not only to make up lies, but to try and have cohesive body language as well. It doesn't take much EQ for an interviewer to detect this. The rational part of their brain may conclude that you're a great candidate, but their gut will tell them something's wrong. Most often, their gut is what you want to win over. The entry level actuarial position is not commoditized – recruiters are looking for real people.

5. MASTERING THE INTERVIEW

By Devin Kinley

Sending a follow-up email after your interview probably has the best $\frac{\Delta Pr(\text{Getting the offer})}{\text{Effort}}$ ratio out of any step in the interview process. Don't miss out on your chance to seal the deal!

Here's a follow-up email I made, denoted with the key components which make up an effective letter:

Good afternoon [REDACTED],

- 1 I would like to thank you for your time for the interview over the phone this morning regarding the opportunity at [REDACTED]
- 2 I appreciated your perspective on the impact of emerging issues in the life insurance industry and how it may influence the evolving role of the actuary. It is clear that [REDACTED] is poised to seize opportunities in technology and innovation and this will undoubtedly prove to be challenging yet exciting times for the company.
- 3 After meeting and/or speaking with [REDACTED] representatives through the interview process, I have been further inspired to pursue a career at [REDACTED]; an actuarial internship would be the first step in achieving this goal.
- 2 [REDACTED], I particularly appreciated your reflections and personal advice in the course of the interview.

Sincerely,

Cedric

1. **The Expression of Gratitude.** Perhaps the most standard and obvious component, but it is nevertheless important that you do not omit this.
2. **The Personal Touch.** This is what separates the junk-worthy email from the star-worthy email. Here, you want to reference a memorable part of your interview, and show that you appreciated something they said. Done well, the recipient will be reminded of a high point in your interview, and they will recognize that you were actually paying attention during your interview.
3. **The Reinforced Interest.** Finally, restate your interest and provide a valid reason as to why you want the job.

THE CDC

The Career Development Centre (CDC) is a massively underutilized service at the Asper School of Business. They can measurably increase your odds of landing a job by providing the following services:

1. Cover letter review
2. Resume review
3. Practice interviews

You should exploit the CDC as much as possible (I mean that in the least conniving way possible). They are trained and experienced at helping people land jobs, and you're paying their salaries through your tuition, so take advantage!

You do not have to be an Asper student but **you do** need to declare an actuarial major to take advantage of these free services. Simply log onto your Career Portal account online and book an appointment.

WIDENING YOUR NET

It goes without saying that you should try applying for all actuarial positions posted on the Career Portal. But why not cast a wider net?

The reality is that Career Portal jobs are only the tip of the iceberg. There are thousands of actuarial opportunities across the world that aren't affiliated with the CDC. Many U of M students get job offers from non-affiliated companies every year. In my opinion, that number could be much higher if more people made such an effort.

It is highly recommended that you apply to non-affiliated companies, especially if you are looking for an out-of-province experience. Where can you find such job postings?

Actuarial internship and full-time opportunities are posted all year round. You can find these jobs on any major job posting website.

ASNA is another great opportunity to find non-CDC opportunities. ASNA is the largest actuarial conference in Canada, held in a different city each year. Many University of Manitoba students have received employment opportunities through this conference.

CRUSHING THE INTERNSHIP

By Devin Kinley

During my first internship, I'll be perfectly honest and tell you that I was way too focused on (admittedly unfruitfully) trying to be a productivity extraordinaire. Although I loved hanging out with the intern crew, I saw work as an insurmountable mountain that I needed to climb every single day, only I could never reach the peak – I could never reach my desired productivity. How unsatisfying is that? Very. The company was great, my projects were great, *but my approach was terrible.*

I learned from that experience that the best piece of advice is to have fun! Because when you have fun, something magical happens: *you actually become more productive and motivated.*

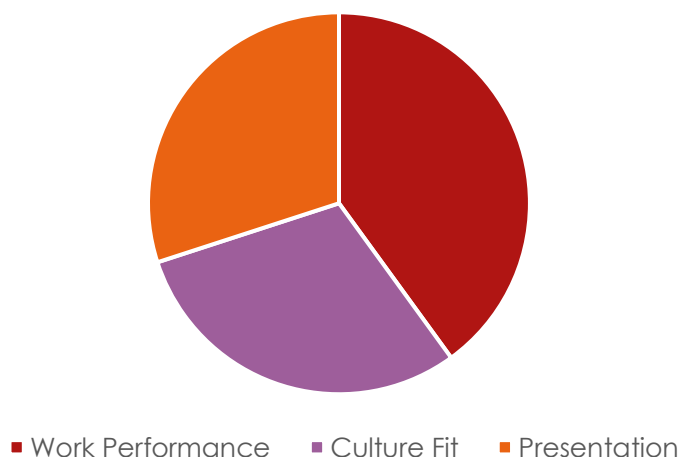
If you follow that advice alone, I can basically guarantee that they will want to hire you back. However, let's go further than that. Why?

Because I am a firm believer in the merits of slaying the internship.

I think crushing the internship provides more benefits than meets the eye, such as:

- Boost career prospects through better reputation if you were to come back to the company on a full-time basis.
- More leverage when negotiating a full-time employment contract
- A great way to learn and grow
- It's more fun

Ok, so let's look at the three main ways in which a typical company might evaluate you, and the approximate weight distribution:



CULTURE FIT

With the stacking evidence that workplace culture can play a pivotal role in company performance, it comes to no surprise that people care about how well you get along with others. There isn't much practical advice to be given on this subject, besides some basics:

Throughout the work term, make an effort to get to know as many people as you can on an individual basis. Most importantly, be sure to participate in as many company events as possible, and socialize with the full-timers.

PRESENTATION

Many internships require its participants to deliver presentations at the conclusion of their internship to discuss what they worked on, what they learned, etc. This platform is easily your greatest opportunity to showcase your skills and potential. A strong performance displays your communication skills, shows that you've achieved a lot over the work term, and that you *understood* your work and how it fits into the bigger picture. These are precisely the skills recruiters are looking for in potential full-time hires, hence its importance. No pressure.

Now I have a gift for you. Here's a link to an actual presentation I made.

https://drive.google.com/open?id=0ByDj1Tyo_QldeUN3aHFSRkxMSWs

I was very reluctant to include this for reasons including company privacy... But then I realized how much I wish I would've had something like this in my preparation!

Some confidential information has been deleted but all the content is there, including every single word I said in the presentation, found in the speaker notes.

This presentation should serve as a valuable guide as it was very well received (if I do say so myself). Of course, no presentation is perfect – it has a couple shortfalls which I will point out later. I recommend you open the PowerPoint file to following along with the commentary below.

You want your presentation to achieve 3 things. Here's how to achieve these.

1. **Teach them** – Much of your audience is here by necessity, and they aren't expecting to get much out of your presentation. If they can actually *learn* something from your presentation, they will be impressed.

You should teach your audience concepts that will help them better understand your project(s), as shown by **Slides 3-8**. My advice here is twofold. First, pretend you are explaining the concepts to your grandma (not to discriminate against grandmas but tend they to have limited actuarial knowledge... sorry FSA grandmas!). Second, use analogies – much easier to follow and much more engaging.

2. **Showcase your work** – Without explicitly bragging, you should show off the impressive work you've done over your work term!

Now that my audience had the necessary background information, I was able to present about my work in **Slides 9-19**. Note the strong visual appeal and limited text. Avoid “point form” if possible.

Show off wherever you can. For instance, in **Slide 18**, I noted that I created a very powerful function with high accuracy.

The most important slide in my presentation was **Slide 19**. It is impressive if you are able to discuss how your project has impacted the company on a big picture scale.

3. **Entertain them** – this can come in the form of strong presentation skills (good vocal tonality, gestures, posture, fluidity, etc), but it can also very useful to add humour to keep your audience engaged.

You may find that humour works best when placed at the beginning and end of your presentation, as I did in my presentation. If you have lots of humorous content, you can inject jokes throughout your presentation. My presentation falls short in this regard – I only had jokes at the beginning and end. Probably because I wasn't funny enough to think of anything more.

Note: The content above is written specifically for actuarial internship presentations. I have chosen to exclude any generic advice about presentation skills because you can (and should) find this online or from co-workers. Don't overlook this – content is important but delivery is the greatest determinant of overall performance! (probably 50%+)

WORK PERFORMANCE

Being a high performer is actually pretty easy. There are a million tips on how to perform well at work, if you focus the following three things, you will probably be considered an outstanding performer.

1. The best way to impress is to **underpromise and overdeliver**. If your boss asks you to make a Sunfire, *build a Cadillac*. The bells and whistles matter. Remember when I told you that during my first internship I was making a colossal effort to be ultra-productive? Well, I also made the crucial mistake of setting impossible goals in front of my manager. Not a good combination. I was *overpromising and overdelivering*.

So for my next internship, I decided to set *realistic* goals. This simple switch made a *huge difference*.

2. **Write excellent emails**. Many of your co-workers, especially those with whom you have limited interactions, will base their opinion of you on the emails they get from you. If you get into the habit of writing excellent emails, your reputation will thrive. Be intentional about improving the clarity, flow, and conciseness of your emails.
3. **Ask questions**. Especially big picture questions. I'm sure you've heard it a million times. However, as with most overused rhetoric, you probably haven't fully internalized its importance. Here are the underlying reasons for which it can be beneficial, even imperative, to ask questions. First, it displays intellectual curiosity, a highly sought after

competency in today's workplace. Next, you'll spend less time pondering, thereby boosting productivity. Finally, you'll *actually learn*, and gain a better understanding of your project, which will be helpful for your presentation.

BONUS - CRAFTING A PERSONAL BRAND

If you've nailed down the other aspects of being a good intern, a more advanced tactic is to try developing a personal brand. This can come in many forms. For instance, if you have strong VBA coding skills, you could position yourself to be the go-to person for any co-worker in need of help with their code. The goal here is to make yourself indispensable to your team. If you deliver tangible value on a consistent basis, your reputation will reflect this. This isn't essential but can get you major bonus points.

NETWORKING

Networking. Bleh. If you hate that word as much as I do, it probably triggers an image of a sleazy salesman talking your ear off with his deep suave voice while flashing his business card. It can seem very contrived. But it doesn't have to be.

Your best bet is to try to get to know people at company events, but there are plenty of other opportunities to meet full time staff. If you meet someone interesting, and there is a *natural* opportunity to do so, ask them for lunch or coffee! If you have a genuine interest in them, they will be flattered by your request.

But beware as this can backfire. First instance, if you bump into a VP in the bathroom on your first day and ask them to lunch, you will be seen as a gunner (look it up on urban dictionary). Don't be a gunner. Having *natural* interaction and progressions is key.

Having personal relationships with managers and executives can lead to fruitful mentorship relationships, and other great opportunities!

CASE COMPETITIONS

By Celia Dang, Hui Lin Cheong, Kevin Wong, Yash Katyara

Case competitions are a fantastic way to gain experience in the industry! They can help in improving your understanding of real-world problems, improving your time-management and problem-solving skills, and of course, refining your presentation skills.

Actuarial students here at the University of Manitoba generally participate in the UMAC Cup, which is a short actuarial case competition that only requires a 1-day time commitment. We also usually have a team of students participating in larger actuarial competitions such as the [Munich Re Cup](#) and [ASNA Case Competition](#) every year! These case competitions require a longer time commitment over the course of a few months.

There are also many opportunities to participate in many other case competitions, with people of other majors, in competitions that are either hosted by other student groups in Asper or by other schools/organizations.

In this section, we will be giving a few tips on participating in a case competition!

STEPS

1. **Meet the Team:** Whether you already know the people you are participating with, or if you have never seen each other before, it is good to get together before the competition to get to know each other a little better
2. **Come up with a Plan:** Take time to look over the case individually, and then discuss together what steps you want to take. This can help bring everyone's individual ideas together into one team plan
3. **Delegate tasks to each team member:** There will not be enough time for everyone to go over everything together, so each team member should work on their own parts of the case
4. **Regular meetings to catch up on work progress:** Since everyone will be working independently on their section, it is good to have some time to meet back up and discuss what you have produced or learnt. This can also help keep everyone on track and give more ideas if anyone is stumped!
5. **Attend Info/Munich Re Cup Q&A Sessions:** The Munich Re Q&A sessions help you formulate your solution, because one of the most challenging jobs is to understand what the questions want from you, and these sessions help give you the chance to further understand the case. Taking notes during these sessions is also very helpful! The UMAC Cup also has an info session before the competition to help participants with some tips!
6. **Weekly Meetings with Academic Advisor:** For the longer competitions, you should take the time to meet with a professor to ask any questions, and improve on some ideas. It also helps ensure that you are on the right track and can solve queries in a timely manner.
7. **Practice, Practice, Practice:** Before the actual presentation, it's always good to run over your presentation with your teammates a few times, in the format of the presentation (in-

person, Microsoft Teams, Zoom, etc.). Also try to practice presenting to different people if you can, and if you have more time until the presentation, then practice again!

8. **Incorporate Feedback:** Chances are, your first presentation will not be your best one, so after each practice, try to incorporate the feedback provided by your fellow teammates or any of the others that may have been watching, to make slides clearer or for the presentation to flow better.

TIPS

- **Stay organized:** If there are online files provided for the case, make sure that every member has access to the most updated files. Using Microsoft Teams or Google Drive to save them is our recommendation.
- **Be Creative:** Don't be afraid to try out new innovative and creative ideas! Build a strong argument on why and how it would work, to justify whether the solution is feasible for the current challenges.
- **Prepare a Cohesive Strategy:** Try not to have all of the sections of the presentation be separate, try to show that they are all related and tied together
- **Don't Be Afraid to Google:** Lots of times, the case could be about something that you are not too familiar with, so you may have to search for more information. You might also want to look up the costs or process steps of something you are considering implementing for your solution
- **Dress Professionally:** Case Competitions are a formal event, so you should dress professionally
- **Have Organized Slides:** Having professional looking slides can really help improve the perspective of your presentation. You should make sure it looks appropriate for your presentation and have a consistent colour scheme, font, and formatting. Since there's not much time to work on the UMAC Cup, your team can decide some of these things before the day of the competition.
- **Be Confident:** Speak out your answers during the Q&A session and don't doubt yourself or your team members. Prepare some slides in the appendix to back up your answers (this shows that you are prepared to tackle any question that judges might have).
- **Be Aware of Time:** You have a limited time to present your case, and you don't want to go over, or too far under that time limit. So when practicing, try to time how long it takes to go through the presentation to ensure you're on time. This also applies to every speaker, since it doesn't look too great if only one person does most of the talking, so try to have everyone speak for a similar amount of time and help answer at least one question!
- **Reach out to Analysts to Judge your Presentation:** For the Munich Re Cup, we presented to a few different actuarial analysts before our presentation. This gives a chance to practice answering different questions as well as present to people with different experiences. They also provide valuable feedback and boost your confidence too!

SECTION TWO

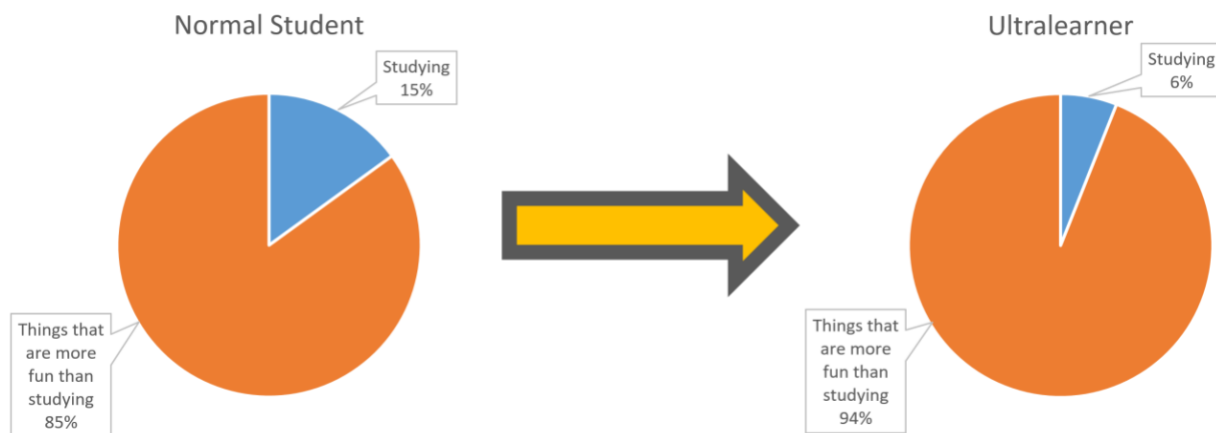
THE UNIVERSITY COURSES & LEARNING TECHNIQUES

INTRODUCTION TO ULTRALEARNING

By Cedric Gousseau

Before diving into exam related stuff, let me tell you about ultralearning; the science of studying minimization.

One of the most useful endeavors Devin and I have embarked upon over the past year has been our attempt to minimize the time we spend studying. I think this is a goal everyone should strive for, and the reason is simple – less time spent studying means more time spent doing things that are more fun than studying.



It would be no stretch to say that we've probably decreased our average time spent studying by 2-3 times while maintaining the same level of grades. We hope you do not see this as a boastful proclamation, but rather that it serves as an impetus to join us on the ultralearning bandwagon.

THE YIN AND THE YANG OF ULTRALEARNING

There are two separate but complementary approaches to achieving the ultralearner status. There are external factors, and there are internal factors. External factors are quite broad and include anything that impacts your mental capacity. Internal factors include the strategies and tactics you use when studying.

Let's explore these two facets of ultralearning and how to optimize each one.

EXTERNAL FACTORS

Imagine you've got a heavy midterm in two weeks. Since it's so far away, you decide to push back your studying by one day. And another. And another... Until you only have one day left. If you're a chronic procrastinator like me, this happens for every exam and paper ever. (If you'd like to learn more about procrastination, how to fight it, and how to harness its powers, this article is amazing. In fact, the entire blog is amazing – Devin and I have read every post. Anyways, back to ultralearning...)

In order to learn all the necessary material in a short period of time, you'll need to create what's called a superday. Here's how an ultralearner might manipulate their physiology and psychology to achieve a superday (warning: this might be reminiscent of the opening scene in American Psycho):

8:00AM: Wake up

- Chug a half liter of lemon water for wakefulness and sustained energy
- Take a cold shower for increased adrenaline levels, a flood of mood-boosting neurotransmitters, and instant alertness
- Eat a balanced breakfast (ex: omelette, an avocado, Greek yogurt, and toast) to give yourself energy for the morning
- Brew a large pot of green tea. Green tea contains non-essential amino acids which work synergistically with caffeine to produce sustained and focused energy. Drink a cup every hour until 3PM. (be sure to cycle off caffeine at least every month in order to minimize tolerance)
- Plan out your study day. How would you like to attack your studying? What are your goals?
- Turn off the internet on your laptop and phone

9:00AM-12:00PM: Study

During this four hour period, your goal should be to attain the state of "deep work" (the book *Deep Work* by Cal Newport is a great introduction to the concept)

12:00PM-1:00PM: Do some form of exercise

A personal preference is a good game of squash, though the only requirement here is that you work up a sweat so that your brain will be running on endorphins and you'll have renewed energy for your next study session.

1:00PM-1:30PM: Eat lunch

1:30PM-5:00PM: Study

5:00PM: Go do something fun

If you've successfully attained a high- performance state throughout the day, you shouldn't have to study past 5PM. So reward yourself with the night off!

This is just one example of a superday. The key here is to consciously monitor and optimize any external factor that might impact your cognitive performance. There are more than you think: (You don't need to go through this entire table, I just want to prove that there are many)

Environmental Factors	→ Cleanliness of surrounding area → Sounds → Access to sunlight → Weather → Home vs Isolated from home → Presence of non-studying people → Presence of study partner(s) → Comfortableness of clothes → Chair → Time of day → Music → Wearing headphones (no music) → Internet-connected phone → Access to internet on laptop → Room temperature → Access to snacks → Access to water bottle	Physical Factors	→ Hunger → Thirst → Sleepiness → Having exercised that day → Presence of post-exercise endorphins → Caffeine → Emotional state
		Motivation-related Factors	→ Progress leading to feeling of accomplishment → Perceived importance of task (Base Factor) → Time until deadline (Base Factor) → Whether someone is dependent on outcome → Having something fun planned afterward → Giving yourself mini-rewards → Goal-setting
		Other Factors	→ Difficulty of task → Use of the Pomodoro technique → Degree to which you can limit multitasking

INTERNAL FACTORS

Now that you've mastered your body, let's look at the actual strategies you'll need to use.

Honestly, there isn't enough room in this pdf to teach you how to all the ultralearning strategies. Devin and I had to take multiple online courses (on the subject of metalearning) and go through months of experimentation before really mastering the art of learning really fast.

I can give you some basics, but if you'd like to really dive into it, I found this online course to be a pretty good introduction to the subject.

Here are some basic principles to get you started:

An overarching principle of ultralearning is that instead of compartmentalizing your knowledge, you need to create a web of knowledge. That is, you need to constantly make connections between different concepts. Every time you come across a new concept, ask yourself, how does this idea related to other concepts? Additionally, how does every concept related to a real life scenario? For instance, you could compare derivatives from calculus to the speed and acceleration of a car.

Use summarization. Have you ever taken a course where you are allowed to bring a “cheat sheet” into the exam? Chances are, you barely had to use it during the test. Take advantage of the benefits of summarization by making cheat sheets for exams even if you aren’t allowed to bring it on test day.

In class, use flow-based notetaking. This link will teach you the concept.

Numerous studies have shown that if the subject matter involves fairly basic concepts and lots of memorization (such as a Marketing course), the most effective study tactic is active recall. Sounds simple, yet it’s hard to do it correctly. For this reason, I created an excel tool as a helpful platform for an active recall strategy, found at this link:

https://drive.google.com/open?id=0ByDj1TyO_QldZTRNUnBPukVyVUQ

There are plenty of other strategies you can find online to help maximize learning efficiency. However, I think the main difference between an ultralearner and a wannalearner is having an experimenter’s mindset. That is, you need to be intentional about improving your learning speed. Every time you try a new tactic, you need to self-assess its effectiveness to determine whether or not to add it to your ultralearning toolkit.

Also, much of what we know has been derived by the work of Scott H Young and Cal Newport. If you’re interested in further information about metalearning, I would encourage you to look into these two fascinating individuals.

UNIVERSITY COURSES UNDER THE MICROSCOPE

By Cedric Gousseau and Katherine Stobbe

Jumping off a cliff hurts less if you know how hard to brace yourself. That is why the Bracing-Yourself-for-Survival table was created. Not that university courses are actually analogous to falling off cliffs (ok besides interest theory).

The hope is that this table will allow you to:

Gain insight into how to best tackle each course

Get a better sense of how much effort and time you should put into each course, and how to best tackle them.

Devise balanced semesters. If you sign up for Models 2, Admin Poly, and Derivatives 2 all at once after reading this table, you’re using it wrong.

	Course	Difficulty	Time
Intro Classes	Intro to Microeconomics	☠	☠
	Intro to Macroeconomics	☠	☠
	Intro to Calculus	☠☠	☠☠
	Vector Geometry and Linear Algebra	☠	☠☠
	Calculus 2	☠☠☠	☠☠☠
	Multivariable Calculus	☠☠☠	☠☠
	Introduction to Statistics and Computing	☠	☠☠

	Probability 1	☠☠☠	🕒🕒
	Probability 2	☠☠☠☠	🕒🕒🕒
	Management Science	☠	🕒🕒
	Business Communications	☠☠	🕒🕒🕒
	Corporate Finance	☠☠	🕒🕒🕒
	Financial Accounting	☠☠	🕒🕒🕒
Business (Core)	Managerial Accounting	☠☠☠	🕒🕒🕒
	Introduction to Entrepreneurship	☠	🕒🕒
	Business and Society	☠	🕒
	Management and Organizational Theory	☠☠	🕒🕒
	Introduction to Organizational Behaviour	☠☠	🕒🕒
	Commercial Law	☠☠☠	🕒🕒🕒
	Information Systems for Management	☠☠☠	🕒🕒🕒
	Fundamentals of Marketing	☠	🕒🕒
	Introduction to Management Sciences	☠☠	🕒🕒
	Supply Chain and Operations Management	☠☠	🕒🕒
	Human Resource Management	☠☠	🕒🕒🕒
	Administrative Policy	☠☠☠☠	🕒🕒🕒🕒
	Discrete Mathematics	☠☠☠☠	🕒🕒🕒🕒
	Statistics and Computing	☠☠	🕒🕒
Science (Statistics)	Linear Models	☠☠	🕒🕒
	Time Series Analysis	☠☠	🕒🕒🕒
	Introduction to Stochastic Processes	☠☠☠	🕒🕒🕒
	Introduction to Statistical Inference	☠☠	🕒🕒🕒
	Interest Theory	☠☠☠☠	🕒🕒🕒
	Economics and Financial Applications	☠☠☠	🕒🕒
Actuarial Classes (Core)	Financial Derivatives for Actuarial Practice	☠☠☠☠	🕒🕒
	Actuarial Models 1	☠☠☠☠	🕒🕒🕒🕒
	Actuarial Models 2	☠☠☠☠☠	🕒🕒🕒🕒
	Short-term Actuarial Mathematics 1	☠☠☠	🕒🕒🕒
	Short-term Actuarial Mathematics 2	☠☠☠☠	🕒🕒🕒
	Regression Modelling in Actuarial Mathematics	☠☠	🕒🕒
	Risk Management	☠☠	🕒🕒
	Introduction to Property and Casualty	☠☠☠	🕒🕒🕒
Actuarial Classes (Other)	Actuarial Aspects of Investment Practice	☠☠	🕒🕒

SECTION THREE

THE ACTUARIAL PROFESSION IN A NUTSHELL

INTRODUCTION

By Devin Kinley

The goal of this section is to equip you with a solid base of knowledge about the actuarial profession, which will hopefully allow you to make more informed career decisions. This knowledge could also come in handy in interviews and info sessions.

The information in this section was gathered from conversations I have had with a number of different actuaries as well as online sources. I would like to emphasize one particular text that I found exceptionally useful when writing this section as well as during recruiting season: *Achieving Your Pinnacle a Career Guide For Actuaries* by Tom Miller. You can find this book online for free (legally!). It was a great read and I highly recommend that all new actuaries give it a read.

I've also found the SOA and CAS websites provide a lot of good information as well as well written and interesting articles in the magazines they host on their websites. Keeping up to date on the current actuarial environment is not only good so that you can make the best career decisions.

WHAT IS AN ACTUARY?

By Devin Kinley

In order to understand what an actuary does, let's picture a world with no protection from our everyday risks. In fact, let's imagine the worst day ever ☹. Bear with me this is going to be depressing, but don't worry as it has a happy ending.

Your 70, you wake up early to go to work. Your pension that you've worked your whole life for has collapsed last year because of a market downturn. Your significant other also can't work because they are disabled and unable to support the household.

You get in your car. On your way to work you crash your car, totaling it. It was your only way to get to work.

You go into surgery. The procedure costs you the remainder of your life savings. You die the next day, leaving nothing to your family so that they can support themselves.

That was super dark, but it's done, we got through it, now time for the happy ending. There are services that can protect us from that terrible day.

- Well-designed pension plans
- Disability insurance
- Car insurance
- Health insurance
- Life insurance

These products and services would have protected you on that terrible day from all the terrible financial implications of each event.

In life we have an infinite amount of risks. Our job as actuaries is to protect society from those risks.

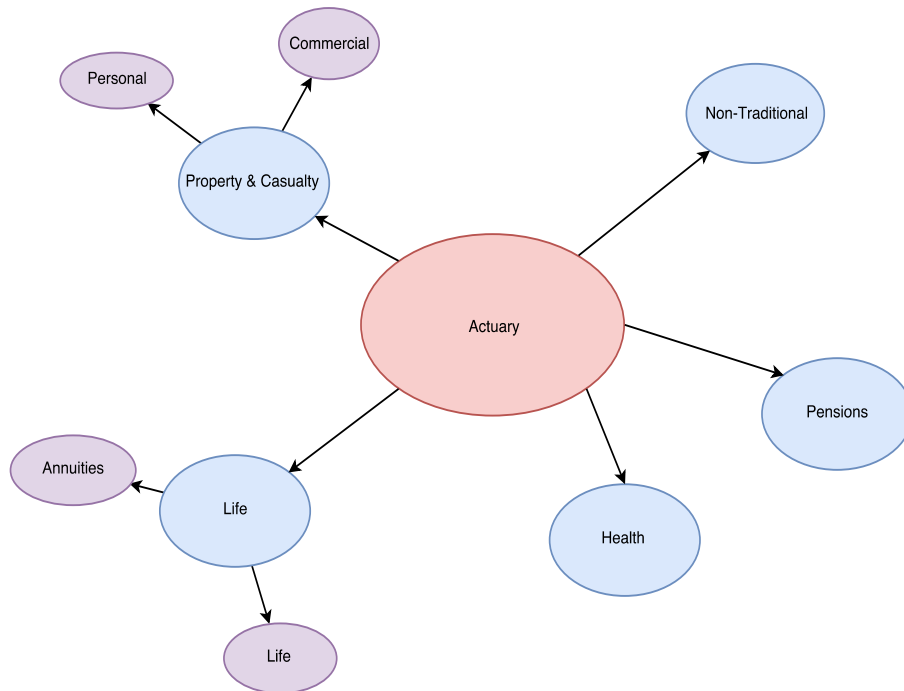
"How does an actuary protect society from risks?" you ask. Great question – let me give you an example. Let's say you're a 21-year-old male with no vehicle collision history and you want to buy car insurance. What an actuary will do is take that information and feed it into a mathematical model they created based on statistics and industry knowledge to give you a quote¹ on how much you will pay in premium² for your car insurance policy³. This is only one example though, actuaries work in a wide range of areas quantifying risks and finding creative solutions to reduce risks.

COMPARING THE TYPES OF ACTUARIES

By Devin Kinley

Choosing the type of actuary you would like to be is a very long process that you should spend many hours researching. In an ideal world, you would work an internship in every industry to see what suits you best. However, this is not always realistic.

Here's a mapping of most areas you can work in as an actuary:



While it's easy to move between the different purple ovals, it can be more difficult to switch blue ovals once you're further down your career.

Generally, for each one of these areas you can either work in an insurance/reinsurance company or work for a consulting company, with the exceptions. Pension actuaries almost always work in consulting.

Below I will briefly summarize each sector. Don't let the brevity of the summaries deceive you – in each one of these areas, there are new and innovative ideas changing the market. Each area is experiencing massive change making them all very exciting to work in.

PROPERTY AND CASUALTY

P&C companies insure everything besides your life or health. Personal insurance refers mainly to home and auto insurance whereas commercial insurance refers to insurance sold to businesses.

LIFE

Life insurance companies have two main product lines – annuities, and life insurance. Annuity products are financial instruments that pay the customer a sum of money on a periodic basis. These are helpful for retirement planning purposes, as they can prevent you from outliving your assets. Life insurance is insurance that pays out a sum of money on the death of the insured person. The main purpose of life insurance is to provide financial protection to family members and loved ones.

HEALTH

Health insurance covers health related expenses. This sector is much larger in the United States given that the U.S does not have public health insurance.

PENSIONS

Pension actuaries mainly focus on creating and evaluating defined benefit pension plans. Defined benefit (DB) pension plans guarantee a sum of money on a periodic basis to the pension members until death. Unlike defined contribution (DC) plans, actuaries are required to evaluate DB plans in order for them to be legal. In a DC plan, a pension member is not guaranteed an exact sum of money on a periodic basis upon retirement, and thus the risk burden lies with the pension holder.

COMPARING THE INDUSTRIES

Type of Actuary	Designation	Percentage of Actuaries (US)	Average Salary (\$1000 US)
P&C	FCAS	27.50%	155-169
Life	FSA	41.33%	160-169
Health	FSA	12.46%	153-164
Pensions	FSA	18.71%	140-151

**After full accreditation and 5-7 years experience*

**Sourced from <https://www.dwsimpson.com/about/salary-survey/>*

There are many different factors in choosing your line of business; salary is one of them. That being said, salary should not be the only determinate of the type of actuary you would like to become. From this table, we can see that all actuaries make a very comfortable salary, with only slight variations between each type.

According to this graph, in the U.S, SOA actuaries account for 72.5% of all actuaries and CAS actuaries account for the remaining 27.5%. The SOA is definitely a larger organization and that does come with the benefit of more easily switching between different industries. However, once you begin working full time, switching between industries (Life, Health, Pension, P&C) becomes increasingly difficult as time passes.

The main downside with choosing P&C is that you need to decide earlier on what type of actuary you would like to become. However, you are compensated with a higher average salary.

Here are the companies that currently recruit at the University of Manitoba, split by industry:

Life	Health	Pension	P&C
Canada Life	CIGNA	Aon	Wawanesa
Sun Life		Mercer	Intact
Manulife		Willis	Munich Re
New York Life		Towers	
Munich Re		Watson	
Wawanesa			

Note that the mass majority of employment opportunities at the University of Manitoba are in life insurance. However, this does not represent the actual job market and I highly recommend looking for more opportunities outside of the Career Development Centre.

For many students at the University of Manitoba the question is whether they should be a P&C actuary or a Life actuary. This I believe is primarily due to the fact that the two largest employers in Winnipeg are Canada Life, a life insurance Company, and Wawanesa, a P&C insurance company.

The table below gives a great summary of the main differences between life insurance companies and P&C insurance companies.

	P&C	Life
Insured	Physical object, like house or car	Human life
Payout	Unknown amount and time	Fixed amount at unknown time
Catastrophic events	Frequent; reinsurance is crucial	Less frequent
Main source of Profit	Pricing insurance well	Pricing and investing well

P&C insurance policies are usually renewed on a yearly basis. This is a very important distinction from life insurance policies, most of which are contracts that last decades.

For a life insurance company, claims usually occur many years in the future. Therefore, the main area of concern for a life insurance company is what to do with the premium during that time. The more successful the insurance company is at investing that money, the more the money grows over time.

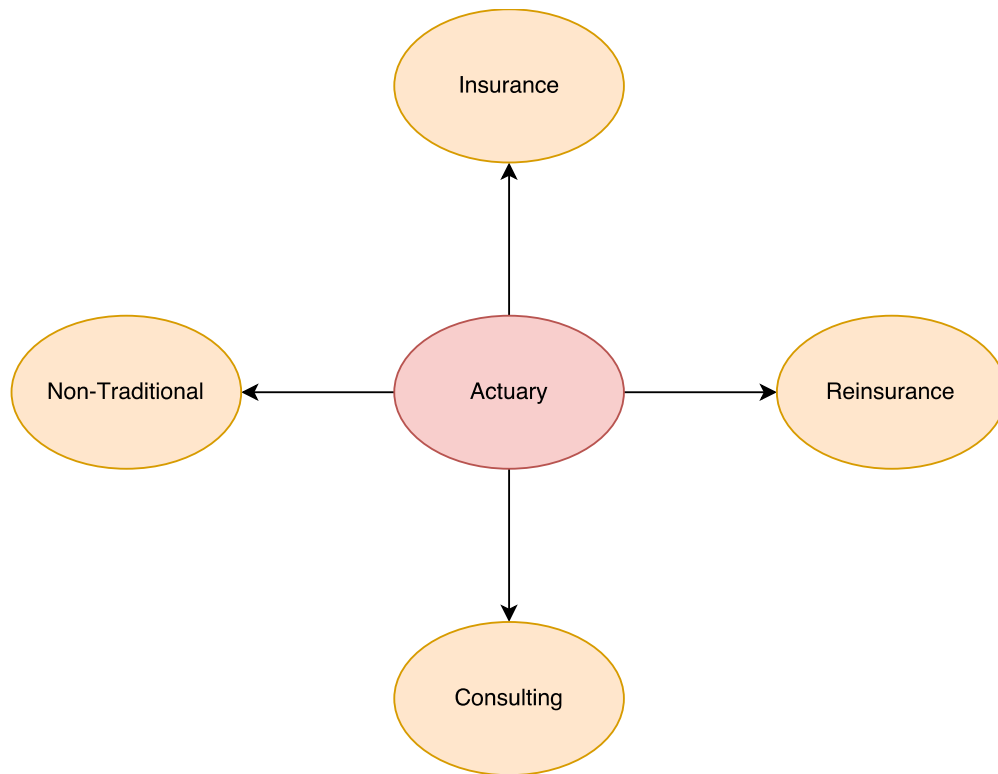
As an actuary in a life insurance company, investing risk become much more of an area of focus when compared to the P&C industry. That being said, in life insurance it is still very important to price insurance correctly.

Conversely, for a P&C insurance company, claims will either occur or not occur within the year. Because the company has much less time to profit from the effect of compounding interest, investing becomes much less of a concern.

As an actuary in a P&C insurance company, proper statistical models are the main area of focus. That being said, any surplus cash still needs to be invested. In fact, the most successful investor of all time bought a P&C company to be able to invest all of its surplus and make massive profits. The company I'm talking about is GEICO and the investor is Warren Buffet.

THE ACTUARIAL INDUSTRIES

A broader way of classifying actuaries is by the more broad industries they are a part of.



INSURANCE

The main function insurance companies provide for society is that they buy society's financial risks. At the beginning of this section, we saw why this is such a valuable industry to have.

Since actuaries are risk professionals and insurance companies are in the business of managing risks, actuaries are at the core of insurance companies.

The premise of insurance is the idea of spreading a society's risk over many different people and regions. Insurance originated in small communities where each community member would agree to cover the loss of another community member in the event of a catastrophe.

Insurance companies took the idea of spreading risk amongst individuals to a whole other level by spreading risks across multiple independent regions and by offering a whole range of different products in an attempt to both distribute and hedge their risks.

Insurance companies can have two different types of ownership structures: Mutual ownership (where policyholders are also part owners of the company), and private ownership (where the company is owned by shareholders). A mutual ownership structure has both pros and cons.

Pros:

- The incentives of the mutual insurance company are directly related to the incentives of the policyholders
- Mutual insurance companies do not need to earn a large profit to satisfy their owners and therefore can provide cheaper insurance.

Cons:

- Mutual Insurance Companies cannot raise capital as easily as privately/stock owned insurance companies

REINSURANCE

Reinsurance is insurance for insurance companies. For instance, reinsurance companies will often protect insurance companies from large catastrophic events, such as hurricanes or fires.

Reinsurance becomes especially important for a company with highly correlated risks that can all be adversely affected by a single catastrophic event. For example, in 2016, Wawanesa had a huge insured position in Fort McMurray. Massive forest fires destroyed much of the city causing billions of dollars in damage. Thankfully, Wawanesa they had Reinsurance and were able to cap their losses.

In the case of Wawanesa, Their risks are concentrated in Canada, and a handful of US states. On the other hand, a reinsurance company will have their risks distributed across the entire world so one fire in Fort McMurray is unlikely to sink the entire company.

CONSULTING

Consulting firms provide professional services to other organizations for a fee. A large portion of actuarial consultants work in pensions, specifically in maintaining and managing defined benefits (DB) pension plans.

There are still actuarial consultants in all other actuarial specialties also, such as life, health and P&C.

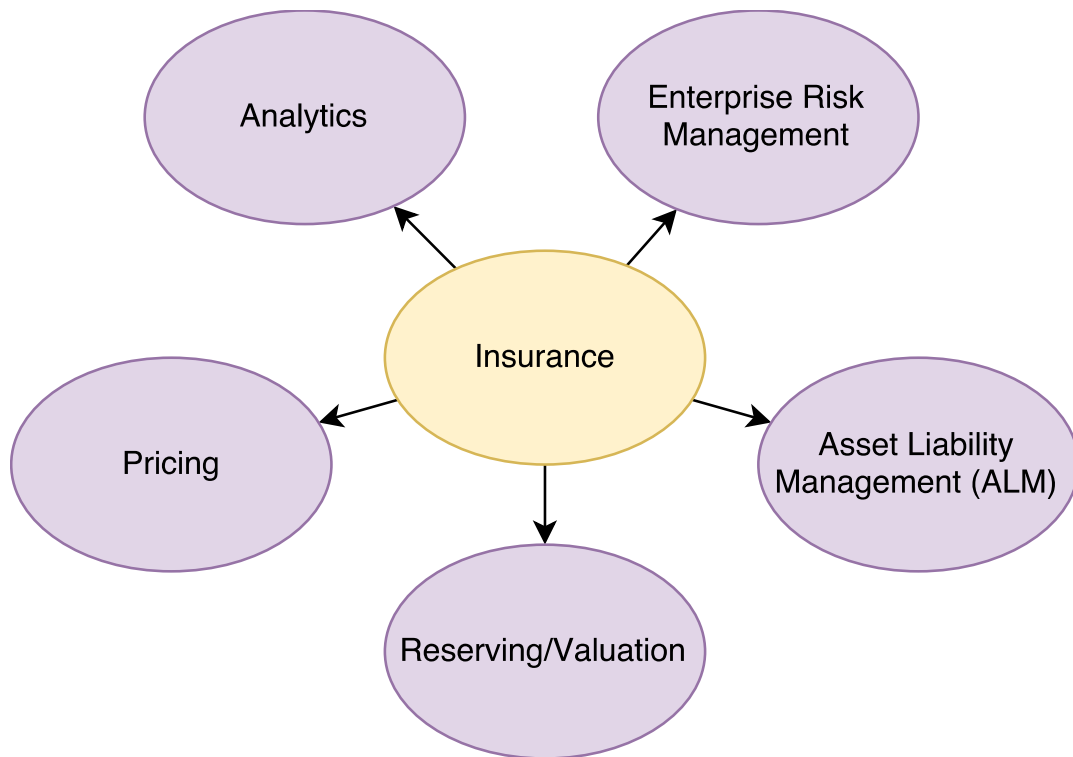
NON-TRADITIONAL

Actuaries are expanding into new non-traditional industries. Actuaries are finding employment in investment banks, software companies, and start ups, just to name a few.

ACTUARIAL FUNCTIONS IN INSURANCE COMPANIES

Since most of you will likely work for an insurance company I think it is important to explain the different departments within insurance companies where actuaries are often found.

The graph below generalizes some of the main departments found in most insurance companies.



PRICING

Pricing is the practice of determining insurance premiums based on characteristics of an insured item or life. For instance, pricing car insurance can be based on merits or age. Some sub-departments of pricing include:

- Commercial Lines Pricing (P&C)
- Personal Lines Pricing (P&C)
- Group Benefits (Life/Health)
- Group Life (Life)
- Individual Life (Life)

RESERVING/VALUATION

Reserving actuaries determine how much money the company needs to hold to cover future potential losses.

Reserving/Valuation along with Ratemaking/Pricing are the two traditional actuarial roles. It is often recommended that actuaries get some experience in one or both of these areas.

ENTERPRISE RISK MANAGEMENT (ERM)

Enterprise Risk Management is about quantifying major risks and opportunities that can affect an entire corporation, and creating strategies to deal with these situations.

ANALYTICS

In the analytics department, actuaries analyze traditional and non-traditional data sources to decipher information used to aid in the decision-making.

The new buzzword in the actuarial field is predictive analytics. Predictive analytics is about looking at unused data sources (such as information from your smart watch) and more sophisticated techniques to make better business decisions.

ASSET LIABILITY MANAGEMENT (ALM)

ALM is about protecting your assets from the risk of changing interest rates or liquidity problems. When interest rates change, surplus can be dramatically affected which can negatively impact insurance companies. In an insurance company, payment patterns are very complicated and properly mitigating your interest rate risk is a necessity. Scenario testing is a helpful tool to see whether current capital levels are adequate.

INSURANCE VS. CONSULTING

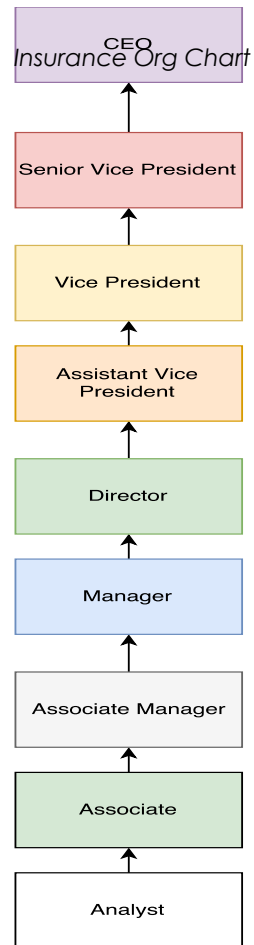
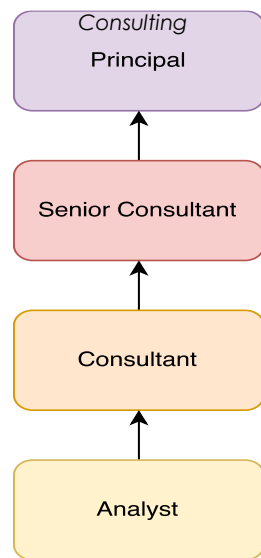
Another major crossroad you'll likely face is deciding whether to choose the insurance or consulting route. I want to stress that your career satisfaction isn't just a function of the type of work you do – your boss, department, company, and co-workers have a massive effect on your overall career satisfaction. Luckily for us, each and every job is unique in its own way. However, there are some general differences between consulting companies and insurance companies.

In many ways, consulting is similar to owning your own business as an entrepreneur. As a consultant, you work directly with clients, and your success is directly related to whether you are able to keep and attract clients.

In general, consultants must have a particular set of attributes. They must:

- Enjoy working with people
- Have strong communication skills
- Be entrepreneurially minded

Consulting companies also have smaller offices with much flatter organizational structures, as illustrated by the following charts:



A huge difference lies in the work life balance you'll find in these two areas.

Weekly Hours: The general consensus is that consultants work more hours. It is very common to have a 40-hour workweek in an insurance company, not as common for consulting. Additionally, consultants' work hours can be highly unpredictable at times.

Study Time: Both insurance and consulting have designated study time given per exam. However, in consulting you have to work your study hours around your client needs. In insurance you have much more freedom to choose when you study.

Flexibility: Consultants are known to have more flexibility with regards to vacation, especially during the non-busy season (summer).

CONCLUSIONS

If you want to have a more scheduled, predicable and balanced life then consider insurance. If you want a lifestyle that's more entrepreneurial but less predictable, consider the consulting track.

CONCLUSIONS

TOP 3 TIPS

By *Katherine Stobbe*

You are almost at the end of this guide! Now before you close this document and start panicking about the next few years of your life, let me provide you with the three overarching ideas that will allow you to be successful in school, in the workforce, and everything in between.

TIME MANAGEMENT

Time management is the absolute KEY to conquering the actuarial field. The next few years of your life will be incredibly busy, and balancing university, exams, internships, and your personal life might seem impossible, but can be obtainable with good time management and organizations skills.

I would highly recommend figuring out a way of scheduling and organizing that works best for you, whether it be using Google Calendar, Outlook, different apps, or just a physical planner. I use Google Calendar, along with an app called *Todoist*, which allows you to break down your work into projects, subprojects, tasks, and subtasks with different due dates to keep you on top of your schedule. As important as it is to study hard, it's equally as important to take breaks and visit with friends and family. So, don't neglect your social activities, simply make sure you're managing your time well enough to fit them into your weeks!

DISCIPLINE

Sometimes, or even most of the time, it is very difficult to find pure, intrinsic motivation. This guide is full of information and advice, but none of it will be useful unless you have the discipline to put in hard work. After creating a calendar, schedule, or making to-do lists, make sure you actually use the tools you created and stay on track. Discipline is hard to explain or even 'try to do', you must simply just 'do.'

WILLINGNESS TO LEARN

Lastly, the actuarial program and field will challenge you and is constantly changing. You need to be prepared and willing to learn, re-learn, do research, and ask questions. Your professors, managers, and peers are always available to help, as long as you're willing to reach out.

You will find that there is always more to learn and explore. If this guide can provide so much information on simply preparing to become an actuary, there is infinitely more information on actually being an actuary. Even if you were at the top of your graduating class, there is still much more to the field to learn, discover, and innovate. Believe it or not, that can be the best part of the actuarial field – you will constantly be learning and never be bored.

FINAL NOTES

TO BE CONTINUED BY YOU, THE FUTURE ACTUARIES...

I hope the 2nd Edition of the Actuarial Survival Guide serves you well!

I remember reading through the 1st edition of this guide as a 1st year student, feeling overwhelmed by the amount of work I would have to put in over the next several years. Now, almost done my degree with several exams and internships, I can promise that that feeling doesn't go away... But I can also promise that with this guide, the UMAC team, and your peers, you will succeed in your journey through writing your first exam, finding your first internship, and all the other hurdles actuarial will throw at you. And let's be honest – the fact that you got all the way to the end of this guide is a great start

Please let us know any feedback or comments you might have while reading through this guide, and keep in touch through our mailing list, newsletters, and social media for even more information and announcements.

Katherine Stobbe

UMAC Co-President, 2021-2022