

# AKTUA TIMES

HOW TO WIN

Optimise your strategy now

## Finding a job

The graduate  
recruitment process

Study Smart,  
Not Hard

## Events

Volleyball, bowling and  
just plain fun

Consulting  
and Banking  
...for dummies

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# SAVE THE DATE...

Aktua Dinner  
31 August

Details to follow soon

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# *Letter from the Editor*

Oscar Wilde said that the best way to appreciate your job is to imagine yourself without one. Although, I have, strictly speaking, not been without a job, I can say that I feel the same level of appreciation about being back as the editor of the Aktua Times. Over the last couple of years, writing for and compiling the Times (as it has affectionately become known within the committee) has been one of my personal highlights during each semester.

Of course this is not a task easily completed by one person, and I owe a great deal of thanks to each of the members of the Aktua committee. Not only do each of them contribute to each edition of the Times, but they help to keep me sane – or as sane as an actuarial student can be.

On the surface it may have seemed that Aktua did not accomplish any major feats this semester, but I can assure you that we have been very busy. We decided that after a couple of decades, it was time for Aktua to undergo a little facelift. This facelift included moving the Aktua office to a more suitable location and other internal restructuring, so that we can better serve the needs of the department and it's students; and the redesigning the official logo to better reflect our identity as the actuarial student society.

Further, Aktua has been business as usual. This edition of the Times provides a snapshot of our events over the last couple of months. The career expos, sport days and social events were highly successful thanks to the continued support of the student body. I would however, like to extend a personal invitation to our first year members to attend our social and academic events. You would be surprised how valuable a little networking can be.

Good luck with the final weeks of this semester. May the odds be ever in your favour!



***Jean-Francois Greeff***

(Chairman and Editor)

# Volleyball Day



Aktua's beach volleyball days have become something of a tradition among actuarial students at Tuks. There's no surprise why this event is so popular. It is the perfect combination of sea-sand, a break from your WTW theorems, a free tan and not to mention a relaxed social vibe and tonnes of fun!

This year's event day took place on Saturday, 25 February. It was a sunny day with a slight breeze. Great weather to twiddle your toes in the beach sand, and that's exactly what we did!

The tournament saw a great display of brilliant airborne volleyball shots and dives! Also, some horribly embarrassing shots... as always! But no matter what shot you make, you know that you're going to have fun with your buddies because that's the nature of the sport. (And besides, we give girls two chances to serve).

The tournament was won by *Vanilla and Chocolate Chip Cookies* who were awarded with an Aktua gift hamper. Congratulations!

As soon as the tournament was over, the players decided to stay behind and merge into two extra large teams to play the 'actuarial' version of the game. This version apparently allows players to sit on top of one another's shoulders and stand right in front of the net. Whatever the outcome of such play, it surely provides for great memories and plenty of laughs!

We look forward to seeing you at our next sports day!

**Lawrence de Jesus**





# Career Exposure

## ***Rand Merchant Bank***

The first Career Evening for 2012 took place on the 12th of April and Aktua was honoured to host Rand Merchant Bank – another first.

The guest speaker for the evening was Bhulesh Singh, who is part of FirstRand's Group Treasury Division within the Global Funding Team and also Head of Strategic Projects and Research. Prior to joining the FirstRand Group, Bhulesh was a consultant at Deloitte Actuarial and Insurance Solutions.

Not wanting to speak about 'cliché' topics such as a typical working day, Bhulesh's address centred on the FirstRand Group's role in the capital market. He also spoke about the effect that the recent financial crisis had on companies operating in this market and mentioned some steps that such companies were required to take in order to remain competitive.



After Bhulesh's enlightening talk, the students were then informed about RMB's graduate programme by Tracey Ashington, who is the head of Young Talent Acquisition at RMB, and had the opportunity to pose questions to a recent graduate who is currently on the programme. Graduates go through a selection process, after applying for a position through the RMB website. They then need to choose the division that they would prefer to work in, following this, they are rotated through the different departments over a one year period.

It was a well-attended and educational evening. We look forward to partnering with RMB again next year!

***Marianne Behr***

## ***PriceWaterhouseCoopers***

On the 17th of May, students from the Department of Insurance and Actuarial Science were invited to attend a career evening where they could find out more about PriceWaterhouseCoopers' Insurance and Actuarial Management Solutions, otherwise known as PwC AIMS.

We were privileged to have had 3 members from the Johannesburg office take time out of their very busy schedule to come and address our students.

PwC AIMS South Africa was introduced by Colin van Son, who started up the division here after working for the company in England. He explained that they are a consulting firm who fulfil mainly two roles.

The first is an advisory role and the second providing assurance. He also showed the audience a list of a number of their clients and it was immediately evident that they have a very diverse client base ranging from traditional insurance-type clients, to banks, motor vehicle companies and even large retailers.

Next, Morné de Vos and Shaneen Marshall gave some very interesting practical examples of the work that PwC AIMS does in each of the areas that they work in. It was motivating to see that the many hours spent mastering difficult mathematical and statistical concepts will not be in vain!

Thank you very much to all the students who came! We believe it was a valuable evening and look forward to the PwC AIMS Career Evening next year.

***Marianne Behr***



# ***Finding a job***

While most of you are currently focused on your examination preparation, it might be a good idea to start thinking about the process of finding a job. Events like the annual Careers Fair and Aktua's Career Expos are a good way of finding out what companies are all about and who to contact to start the process but knowing what to expect will put you light years ahead of other candidates.

Thinking that your degree is going to speak for itself is not the best attitude to have. Companies are looking for graduates that have the technical and communication skills that make them an asset to the office, along with the academic ability to pass exams quickly. The aim of the recruitment process is to identify candidates who have these qualities and who, with support, can develop the technical and soft skills needed once they qualify.

## ***How does the process work?***

Most companies have a similar process for graduate recruitment. First, there is an application form and maybe online tests. Next there will often be an interview — either face-to-face or over the phone. Finally, there is nearly always an assessment centre. The process is long and can seem endless, but the rounds highlight different skills and so increase the chances that offers are made to the strongest candidates.

The assessment centre phase lasts for one or two days. It takes place with a group of undergraduates and involves a number of different exercises. As part of proceedings, most companies also have a casual meet-up with current trainees, often over a meal. Contrary to popular opinion this is not to make sure you use the correct knife and fork but to give you a chance to ask the trainees about their study, work and life. This does not mean that good manners and etiquette should fall by the wayside, these things speak to your character a lot more than what you say.

## ***How should you prepare?***

Before you start applying, be confident that you want to be a trainee actuary. Potential employers need to be convinced that you understand the exam process and that you are willing to spend several years doing additional study. You also need to have good reasons why you want to work at the company to which you have applied. For example, it is not a good idea to tell an actuary in an insurance company that you really like the idea of going out to visit different clients and would hate a job where you sat at your desk all day! This is where attending Aktua's Career Expos should benefit you greatly. However, it is important to remember that you shouldn't just be telling the recruiters what you think they want to hear. If you aren't truthful about your expectations and limitations you may find that your job is not suited to your personality at all!



Group exercises tend to feature regularly at assessment centres. They show how you interact with others. The biggest error made is by students who want to make an impression but end up interrupting, talking over people and just not listening. Other students have an idea rejected early on and then stop contributing. There is little you can do to prepare for a group exercise other than consider whether you are likely to do either of the above and guard against it.

Presentations are also popular, as they show how good you are at explaining things while dealing with nerves. If you have never presented before, then half an hour preparing and 10 minutes talking to some of your friends about a film you recently watched would be good practice.

### ***What if it does not work out?***

Not everyone will get a role from the traditional graduate recruitment process. It might be that your qualifications are not that strong or you are just unlucky, but it is important not to give up hope. Remember that you need to look for a job, they don't just find you. It might be good to consider working through a recruitment agent or to accept a role in a company that is not strictly actuarial but may lead to great opportunities. The details of several recruitment companies can be found on the Department's notice board.

Alternatively, you could consider a change of career, and maybe consider the CFA examinations or an Honours degree in a different field. There are several funding opportunities available for postgraduate study. If the resources are available you could just take a year off and write the examinations through ASSA on your own steam.

### ***What if you are successful?***

If you receive a job offer, it is very tempting to accept it straight away in that initial flurry of excitement. Before you do, make sure you want to work for the company and are happy to be based there for the next few years. If you are lucky enough to be choosing between several offers, try to be honest with them all about the situation. The actuarial profession is a small one so it is important to stay on good terms with any company you may wish to work for in the future.

Good luck with your job search and the rest of your journey on your career path.

***Samantha Pretorius***

(Excerpts taken from *Careers: How to get ahead in actuarial* by Jennifer Robertson published in *The Actuary*)

**“In theory there is no difference between theory and practice. In practice there is”  
– Yogi Berra**

# *Uit Agie se Magie*

## *First Year*

So, here we are. We finally made it out of matric and into the 'real' world – the culmination of twelve years' worth of schooling. I hope that all of my fellow classmates have had as much fun as I have had over the last couple of months – it truly has been a blast!

The thing I have enjoyed the most so far, has been meeting all my new friends. Although the Tuks campus seems a bit daunting at first, it truly sets your mind at ease when you walk into a venue for the first time and see a couple of familiar faces.

I have heard so many people say that this is the place where you make your friends who'll stay with you for life. I sincerely hope this will be the case for me.

Academically, the workload is a bit of an adjustment. For those of us who have never coded before, COS is a bit daunting, and those of you, like me, who have opted for the SCI option are enjoying gazing at the stars at night.

However, don't get too comfortable just yet. From what I have heard from some of the seniors, this is the easy part.

Good luck with your first set of exams. I hope to see you all again next semester.

## *Second Year*

As we draw nearer to our destination of being graduates; potholes start making the drive a bit bumpy. We are introduced to Actuarial Mathematics in second year for which you need a mark of 70% to qualify for admission to an exemption module. Just when we thought our schedules were complete for the semester, a friend calls and tells you that Differential Equations is a first semester module, which adds to the number of 07:30 lectures one has per week. Nice one, Math Department, for giving an early lecture on the 'existence and uniqueness theorem!'

But on the sunnier side, the expected Calculus content for the semester was cut and shifted to the new second semester Calculus module for other Mathematical Sciences students - fortunately we don't have to take the module. Nevertheless, that doesn't still shy the lecturers from giving us tremendously difficult semester tests where they can indulge in drawing alpha and circular symbols on our answer sheets.

However, since things never remain 'idempotent', stay encouraged on being an immaculate actuarial students. After all, what will we be if not actuaries? So let's make this one to remember!

One actuary to another:

“Come on, man, live on the edge;  
test at 0% level of significance.”

### *Third Year*

Final year, so here we are! Close your eyes and put up your hand if you don't study 7 days a week... so this is what it's come to? With an average of two practical assignments and three class tests per a week, one of them a 'random' class test (or a deterministic class test, it depends how you look at it). Then add to that semester tests, and you have the typical third year actuarial student week.

Speaking of semester tests, students at the university seem to believe that we need loud dance music (stuck on a repeat loop) to accompany the deepest level of thinking that our brains are capable of. However, don't worry because you get a whole 5 minutes extra to squeeze in some more dance moves while you try and solve some of life's HARDEST problems, as if we weren't all challenged enough!

But if you're a third year reading this, first of all why aren't you studying, coding in SAS or something; and secondly... well done! Soon we'll have a highly coveted degree behind us, and it will all be worth it! But, if you think that the next few months of intense work is only going to be fun and games or just an absolute ball, it helps to remember that not all balls are round [eg:  $(0,1)$  is a ball!]. To my fellow third years, keep working hard! We look forward to yet another challenging semester and a ton of good laughs with our peers!



# Study Smart, Not Hard

How many times have you had a test go badly despite studying for days on end, running on a few hours' worth of sleep and trying as hard as you thought you could? How many times have you simply not had enough time to finish all of your work? If your answer to any of these questions is "more than once", then you might want to read this.

## ***Willpower vs Taking Study Breaks***

A new study from Stanford psychologists suggests that the urge to refresh (or just procrastinate) while working or studying, is all in your head. An extract from an article in the Stanford University News [1], reads as follows:

*The researchers challenged a long-held theory that willpower – defined as the ability to resist temptation and stay focused on a demanding task – is a limited resource. Scientists have argued that when willpower is drained, the only way to restore it is by recharging our bodies with rest, food or some other physical distraction that takes you away from whatever is burning you out.*

*Not so, says the Stanford team. Instead, they've found that a person's mindset and personal beliefs about willpower determine how long and how well they'll be able to work on a tough mental exercise.*

*"If you think of willpower as something that's biologically limited, you're more likely to be tired when you perform a difficult task," said Veronika Job, a post-doctoral student and the studies' lead author. "But if you think of willpower as something that is not easily depleted, you can go on and on."*

*This was the result found from a series of four experiments to test and manipulate Stanford students' beliefs about willpower. They also found that leading up to final exam week, students who bought into the limited resource theory ate junk food 24 percent more often than those who believed they had more control in resisting temptation.*

*The researchers claim:*

*"A belief in willpower as a non-limited resource makes people stronger in their ability to work through challenges."*

*"Willpower isn't driven by a biologically based process as much as we used to think. The belief in it is what influences your behavior."*

Although your willpower does not need a rest, your mind and body does need to rest after, say, 5 or more hours of continuous work which is usually when your cognitive function and concentration start to decline or your rate of productivity declines.



## ***Restoring Cognitive Function***

Research by M.G. Berman of the Department of Psychology at the University of Michigan [2], has shown that taking a walk through natural surroundings is likely to significantly restore cognitive function and concentration lost from prolonged mental exercises. Now this can be as simple as a walk or jog through a garden or any other natural environment. Alternatively, while you are on campus, you could sit in the gardens around the Maths building, lie under a tree or even look at pictures of beautiful natural landscapes and forests on your cellphone while listening to the sounds of nature.

The above have been shown to have “restorative effects on cognitive functioning because they are interactions with natural as opposed to urban environments” [3]. This makes sense if you think of some of history’s great thinkers, like Sir Isaac Newton under his famous apple tree. They all took breaks by relaxing in their natural surroundings.

Other recommendations for study breaks include [4]:

- REM and deep sleep of around seven to eight hours.
- Spiritual rest such as meditation or yoga.
- Other types of physical exercise.
- Eating a nutritious meal or snack.

Just make sure that your study break is never too long. Set a reminder on your phone for when your break is over and remember to stick to your planning schedule so that you finish all your work on time.

### ***Lawrence de Jesus***

[1] A. Gorlick, Need a study break to refresh? Maybe not, say Stanford researchers, Stanford University News, <http://news.stanford.edu/news/2010/october/willpower-resource-study-101410.html>

[2] M. Berman, J. Jonides, S. Kaplan, The Cognitive Benefits of Interacting With Nature Psychological Science, <http://pss.sagepub.com/content/19/12/1207>

[3] D. Munger, What's the best way to take a study break?, Cognitive Daily, [http://scienceblogs.com/cognitivedaily/2009/11/whats\\_the\\_best\\_way\\_to\\_take\\_a\\_s.php](http://scienceblogs.com/cognitivedaily/2009/11/whats_the_best_way_to_take_a_s.php)

[4] M. Edlund M.D, No Time For Downtime? 8 Tips for Improving Cognitive Function, HuffPost Healthy [http://www.huffingtonpost.com/matthew-edlund-md/no-time-for-downtime-gett\\_1\\_b\\_759607.html#s162162&title=Sleep\\_It](http://www.huffingtonpost.com/matthew-edlund-md/no-time-for-downtime-gett_1_b_759607.html#s162162&title=Sleep_It)

**Commutation function:**

**An actuary driving to work.**

# First Year Orientation Social

What happens when you combine a group of first year students, a map of Tuks, an hour during orientation week and instructions to find some bizarre places like “Loeloeraai” and “Oom Gert”? The answer is absolute chaos and confusion for most. (However in retrospect asking them to find Oom Gert was redundant as it seemed that most of them already knew where it was.)

During orientation week Aktua organised a scavenger hunt for the first year students. They had to run around campus to find certain locations that they would get to know very well over the next few months and, hopefully, years. When they reached a point of interest they were asked a question pertaining to their studies.

“You get extremely sick the day before an exemption exam, on the way to the doctor you fall down a flight of stairs and break both your arms. Will you be allowed to get your exemption by writing the sick exam?”

Some interesting answers were given here: “Yes, but only if my mom goes to talk to the lecturer” and “I think so, it seems fair” but our personal favourite remains “What is an exemption?” For those students who are still unsure, the answer it is no! Short of an outbreak of the bubonic plague you will not get your exemption if you write the sick exam.

Aktua would like to thank the Department for their help in organising the event, the first years for their eager participation and the students who were there on the day to help the first years in case they got completely lost.

**Albert Mijburgh**

**Computer:**  
An actuary with  
a heart

**Actuary:**  
Someone who  
expects everyone  
to be dead on time



# Just for Fun

			7		4		2	8
	4	6		3				
								5
	5	8		2	6			
			4	9		5	7	
2		3						
				1		3	9	
4	7		3		9			

How does an accountant  
liven up a party?  
He invites an actuary

9	5	2	6	8	3	1	7	4
4	6	3	7	1	2	5	8	9
7	8	1	5	4	6	3	9	2
1	7	5	8	6	4	2	9	3
2	9	8	3	7	5	4	1	9
3	4	9	6	2	1	8	5	7
5	3	4	1	9	6	7	2	8
1	9	7	2	3	8	6	4	5
8	2	6	4	5	7	9	3	1



the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion (UNESCO 2003).

There are many reasons for the increase in illiteracy. One of the reasons is that the population of the world is increasing rapidly. In 1990, the world population was 5.3 billion. In 2000, it was 6.1 billion. In 2010, it is expected to be 7.1 billion. This means that there are 1.8 billion more people in the world than in 1990. This increase in population has led to an increase in the number of people who are illiterate.

Another reason for the increase in illiteracy is that the quality of education is poor in many developing countries. In these countries, the schools are often overcrowded and the teachers are not well trained. This means that the students do not receive a good education and are therefore unable to read and write.

A third reason for the increase in illiteracy is that many people in developing countries do not have access to education. In these countries, the schools are often far away from the villages and the roads are poor. This means that many people are unable to go to school and are therefore unable to read and write.

There are many ways to reduce the number of illiterate people in the world. One way is to improve the quality of education in developing countries. This can be done by training teachers better and by providing better facilities for the schools. Another way is to provide education to people who do not have access to it. This can be done by building schools in the villages and by providing transport for the students.

It is important to reduce the number of illiterate people in the world because illiteracy is a major barrier to development. Illiterate people are unable to read and write, which means that they are unable to access information and services. This makes it difficult for them to improve their lives and to contribute to the development of their countries.

References

- UNESCO (2003) *Global Education Trends*. Paris: UNESCO.