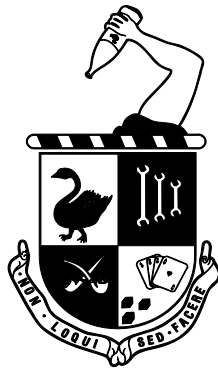


ENGINEERING, COMPUTING AND MATHEMATICS

2010 First Year Handbook

Written by students, for students

Brought to you by the University Engineers' Club



This is what you REALLY need to know

Disclaimer

Some of the information contained within is based on the personal experiences of current students at UWA. Therefore some information may not be applicable to your personal circumstances. Please use the information within as a base of knowledge to get you started and talk to as many UWA staff and current students as possible to form your own opinions.

How to become a member of the UEC

Sign up at O-Day

or

online at <http://www.uec.org.au/node/180>

This handbook was compiled by Alex Doncon and Huw Macey – the 2010 UEC Publications Officers or THEBSES (The Highly Esteemed Bend Sinister Editors). Additional contributions were made by Jessica Clifton, Peter Adam, Mathew Fraser, Fiona Brand, John Clema and more as acknowledged throughout.

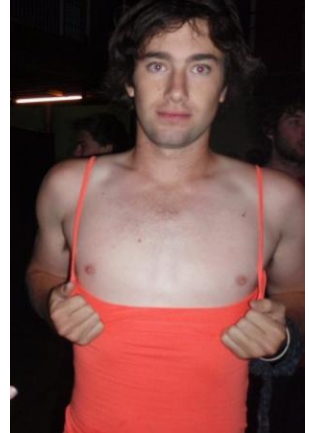
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WELCOME

Congratulations, you've probably just picked up the most important book you'll read all year.

The University Engineers' Club (UEC) has a long and proud history of being one of the most fun and active faculty societies on campus. We are here to improve every aspect of your uni life - both the enjoyable and the difficult. We have a jam packed social agenda, kicked off by our near famous fresher camp and including other awesome events such as the Annual Ball, two pub crawls, cocktail party, year group dinners and many more.



PRESIDENT PRASTY...NO, I'M NOT KIDDING

Our Graduate Networking Dinner is an excellent way to not only get to know company representatives face to face but also to gain an understanding of the field you will be entering into. The Vacation Work Expo and company presentations, sundowners and lunches all provide valuable networking time and the opportunity to get to know companies and possible future employers.



EDWARD CULLEN

As a first year student you may often find yourself a little lost, a little confused, perhaps even a little overwhelmed. Again the UEC can help you. All of the people you will meet through the UEC have been through first year engineering, survived and passed! If you are stuck, have questions about your units or anything uni related then the friends you make within the UEC will be able to help.

So get psyched, get involved and have some fun! We do.

Your 2010 UEC Committee

UNIT ADVICE

FOR FIRST YEAR ENGINEERING UNITS

Please note: these are the common first year engineering units taken by all first year engineering students. You will have other units depending upon your chosen major (mechanical, civil, etc.) and depending upon whether you are studying straight engineering or a double degree. For more specific advice on exactly what you are studying you should seek the advice of an older student who



I'M ON A BOAT! I MEAN ROPE, MAN!

has done the units before. A good place to start is contacting the UEC Representative for your school (see 2010 UEC committee on page 18).

MATH1020 CALCULUS, STATISTICS AND PROBABILITY AND MATH1010 CALCULUS AND LINEAR ALGEBRA

Coffee is your friend, your only reliable and true friend in these units. Do the exercise sheets because they give solutions to those. Do all of Calmaeth (an online assessment tool) and do it early – these are easy marks that you need if you don't want to be scaled down. Utilise the Maths Learning Centre (MLC) if you need help. **GO TO ALL YOUR LECTURES AND LISTEN! THIS UNIT IS NOT FUN TO REPEAT!!!** The UEC highly recommends learning what is in both the maths units as many later units rely on you knowing your stuff!

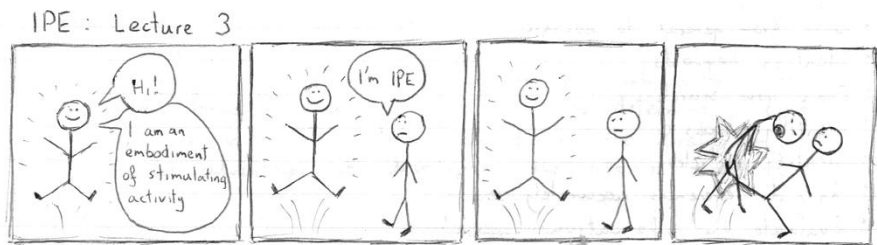
PHYS1101 ADVANCED PHYSICS A

There is a LOT of content in this unit. None of it is impossibly hard but it is all taught impossibly fast. **DO NOT FALL BEHIND IN THIS UNIT!** The textbook can be very helpful. The multiple choice exam can be a life saver as long as you **KNOW SOMETHING!** Don't

rely on getting through the tests/exams by guessing in the multi-choice – trust us, you will fail!

GENG1003 INTRODUCTION TO PROFESSIONAL ENGINEERING

This unit is generally referred to as IPE. It is difficult to give advice on as it has changed almost every year since its inception. Historically it has basically been ‘How to Write English’ and has thus been despised by engineers. The biggest problem has been that a lot of your marks come from your tutes and the quality of tutors varies wildly. Some students in the past have had tutors who can barely speak English! If you have a problem with your tutor – speak up! Let the UEC know as we can help. There has also been a group project in the past worth a significant percentage. Make sure you get a good group (you will make groups in your tutes). A good group doesn’t necessarily mean working with your friends – sometimes they can be the worst people to work with!



A PHOTOCOPY FROM MY ACTUAL IPE NOTES

GENG1001 ENG: INTRODUCTION TO ENGINEERING MECHANICS

Again this is a unit you do not want to fall behind in. It gives you the basics for a lot of your mechanical and civil units if you are entering those respective disciplines. Try to meet people in your tutes in the first week or two as it helps to know people.

GENG1002 ENG: INTRODUCTION TO ELECTRICAL AND ELECTRONIC ENGINEERING

If you are studying EE you will like this unit, if not it will bore you to tears. Do all of Mallard (another online assessment tool) and do it early – same as Calmaeth – these are easy marks that you need. Keeping up is highly recommended, falling behind is likely, zener diodes are the only decent thing in this unit because they have an awesome name. In the immortal words of a student repeating EE "if 1002 were gay I would be the world’s biggest homophobe".

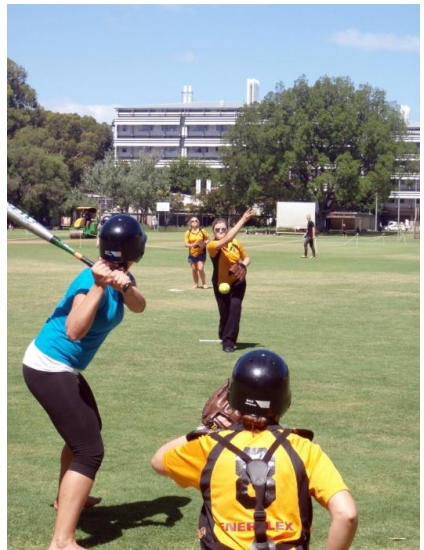
FIRST YEAR COMPUTING AND MATHEMATICS UNITS

Computer science and mathematical science students do not have as many common units as engineering students. There are also far fewer students and hence it is difficult to provide advice. For more specific advice on exactly what you are studying you should seek the advice of an older student who has done the units before. A good place to start is contacting the UEC Representative for your school (see 2010 UEC committee on page 18).

The following advice is for computer science units. Good general advice for all computer science units is: utilise the internet. There are lots of websites online with tutorials and information to help you get started in a new programming language and test what you have learnt so far.

CITS1200 JAVA PROGRAMMING

CITS1200 can be pretty challenging for those who have no prior programming experience. Remember to do the labs as they add up to a fair bit of the final mark and they are generally helpful for doing the project as well. Also remember to submit them early as it gets really busy at the deadline time. The Java API is very useful when writing your code, as is Google, as you can generally find an example of some code very similar to what you are after which really helps when you have no idea what to do. Also if you have an error, 95% of the time you have forgotten the ; or haven't imported the correct library.



SOFTBALL, SOFTWARE - I ALWAYS GET THOSE TWO CONFUSED

The standard editor for CITS1200 is BlueJ. For an alternative you can download Easy Eclipse – it is free and it can be more helpful than BlueJ in assisting you to get over early, simple syntax problems. Generally the book isn't that helpful so consider saving your money.

CITS1220 SOFTWARE ENGINEERING

Software engineering was done in CITS1200, so while you don't have to have done CITS1200 first, you will find it much easier if you have. For this unit make sure you go through the examples and make sure you understand them especially the part covering GUIs otherwise you will be completely lost when doing the first project. The second project is making a Lego robot and writing the code to control it, so it is a good idea to think about how to code what you want to do before building it and realising that you can't code what you wanted to do and have to start all over again.



CITS1231 WEB TECHNOLOGIES

STAYING AWAKE - IT'S DIFFICULT

CITS1231 can be tedious/boring at times but you get to be a bit more creative than in the programming units. This does mean the unit is more theory than programming, so if you rely on your programming alone you will fail the unit – learn the theory! The major project is making a full website. This can be made much better by doing it for a family friend for cash! Don't bother with books, the interwebs can give you all the help you need (if any).

CITS1210 C PROGRAMMING

This is a much more hectic unit, even with CITS1200 under your belt... pointers and memory allocation will mess with your head if you're new to the language. Unlike CITS1200 the book can be quite handy. Start the two projects early as while you will be able to do a lot of them really quickly, the majority of the marks come from very small sections of code that take a long time to do as it takes quite a while to figure out what to do and then how to code it.

"Nunchaku skills... bow hunting skills... computer hacking skills... Girls only want boyfriends who have great skills!"

TIPS, ADVICE AND IMPORTANT INFO

EDUCATION

TEXTBOOKS

You don't have to buy the required textbook, no matter what your lecturer says. Textbooks are helpful, but they are also expensive. It is up to you whether you can afford it and if you can do well without it. All "required" textbooks must be available in closed reserve of a library. Any cost to you (the student) that is required for your studies, other than your uni fees, are classed as illegal fees and this includes textbooks.

Our advice: wait for your first lecture and determine whether you need to buy the text or not. Even ask the lecturer about it. If you need it – check out the second hand bookshop in the Guild courtyard.

SCALING

All units are scaled – so don't aim to get just 50%! First year units are scaled to an average of 62.5% plus or minus 2.5%.

EXAMINATIONS

No exam can be worth more than 70%.

UNIT OUTLINES

Unit outlines must be made available to you (either online or a physical copy). These contain everything you need to know about your unit – so you should read it straight away! The assessment procedures and weighting of assessments as detailed in the unit outline cannot be changed without agreement from all students in the unit. If your lecture tries to change assessment details – don't stand for it and let the UEC know!

UNIT LOAD

4 units per semester is the recommended full-time unit load. However, this is not how many units you have to do.

Overloading: If you hate uni and can't wait to leave then you can overload and do 5 units a semester (but you should also look around because you may be missing some

of the best opportunities of your life and you won't get them again). To overload you need to apply to the Faculty and whether you are permitted to overload will be based upon your passed results and units you have failed.

Underloading: You can go part-time if you like (2 units a semester) or you can do 3 units a semester, which still counts as full-time! This means you still get all the benefits of being full-time (student discounts, Centrelink eligibility, etc.) but you have more free time to do what you want – such as work a part-time job, pursue your sporting interests, socialise and excel in your studies (or even all of the above). Also, you don't even need to apply! Just drop a unit on StudentConnect.

More information:

<http://www.ecm.uwa.edu.au/staff/policies/overload>

EMAILS

Your UWA email account is important as this is the main method the University will use to contact you. There could be a problem with your enrolment, an important announcement from a lecturer or a scholarship opportunity – so check your email regularly! To check your email go to <http://mail.student.uwa.edu.au/>

ASSESSMENT POLICY AND YOUR RIGHTS

ECM Faculty Assessment Policy

<http://www.ecm.uwa.edu.au/staff/policies/assessment>

Charter of Student Rights

<http://www.secretariat.uwa.edu.au/home/policies/charter>

GENERAL

PARKING AND TRANSPORT

There is a severe shortage of parking available at UWA – in fact as a first year student you aren't even entitled to a parking permit. Even if you have a parking permit you aren't entitled to a bay. There are far more permits than bays and you will struggle to get a parking spot after 9am (on a good day).

If you must drive to uni (for instance if you live very far away) you may be eligible for a parking permit. If you simply want to drive to uni you won't be eligible and your alternatives are:

- Park in the surrounding streets. You need to check the parking signs carefully as fines can be quite substantial!
- You can buy a parking permit from the Royal Perth Yacht Club. It is more expensive than a uni permit and is a substantial walk from the ECM Faculty.

Our advice: Don't drive. Take public transport. You can get a Smartrider from the newsagency in the Guild courtyard. If you sign up for automatic debits from your bank account then your fares will be even cheaper (and you don't have to ever worry about running out of fare money).

More information:

<http://www.parking.uwa.edu.au/>

<http://www.transperth.wa.gov.au>

GUILD MEMBERSHIP

Sign up as a full Guild member. The UWA Student Guild offers many benefits including: representation, events (O-Day, PROSH, National Campus Band Competition, End of Semester Show and more), publications (such as the Pelican newspaper), welfare and support and finally discounts! You receive discounts both on campus at Guild outlets and at many off campus businesses. If you utilise your membership you can receive much more in savings than what the membership costs.



THE 2009 ECM PROSH FLOAT - COMPLETE WITH WORKING TANK (NO REALLY...IT FIRED...CONFETTI)

More information:

<http://www.guild.uwa.edu.au/>

FOOD

There are lots of on-campus food outlets where you can get discounts if you are a full Guild member. However, if you want to try something different there are lots of other options:

- Chilliz – very cheap Asian food. Located at 1/192, Hampden Road – just head north up Broadway, cross Stirling Hwy and keep walking.
- Broadway Shopping Centre – there are a variety of Asian restaurants, an Asian supermarket, an IGA, Sugar Bean Cafe, gozleme, a pub (BOB's) and the best kebabs in Perth from Ararat's Kebabs. It is also very close to the ENCM Building.
- Rocket Fuel – good quality coffee for the coffee snobs, but not cheap. Located on Stirling Hwy near the petrol station.
- Mi Goreng – Mi Goreng, if you haven't yet discovered, is possibly the cheapest meal in the world. It isn't healthy, is probably packed full of MSG, but for a student it is at a price that is difficult to refuse. The cheapest option is to buy a box from an Asian supermarket.
- Friday BBQs – almost every Friday of semester the UEC put on a BBQ to provide cheap food for the masses! Ice cold soft drink cans are \$1, Red Bulls are \$2 and hot dogs are \$1. You won't find a cheaper meal on campus than that. Friday BBQs are held outside the Civil and Mechanical building (ENCM) overlooking James Oval from 1pm to 2pm. The first one is on the first Friday of semester (funny that) – 26th February – don't miss out!



THE QUEUE FOR A FRIDAY BBQ - DON'T WORRY IT ISN'T ALWAYS THIS LONG AND IT MOVES PRETTY QUICK!

Check out the Map on page 15 for locations of all of these food outlets.

ADVICE FROM 2009 FIRST YEAR STUDENTS

“Prepare before lectures as much as possible, take the notes or print them off so you can write on them during the lectures. Make the most of tutorials where you can ask questions and get help.”

- Georgia McLinden

“Make as many friends as possible, don't hesitate to introduce yourself to the person next to you in your lectures and exchange numbers etc.”

- Emma Hansma

“Look for all the questions you can find, and do every one that you have time to finish. If you're falling behind, it's your responsibility to find out what you're missing and catch up. If you don't understand something, there's almost always someone who will understand it - don't be afraid to ask them for help.”



A SOUND STRUCTURE IF EVER I SAW ONE

- Edwin Tay

- “Don't frequently miss lectures (especially maths)
- Get all the help and resources you can from others
- Never leave anything (assignments, study etc) to the last minute, you will regret it
- Think ahead to avoid conflict. e.g., wearing sandals/thongs to a lab on a hot day - you will not be allowed in
- Put some thought into your timetable, you may be able to get half days/days off if you plan it well. Plan ahead - don't plan your 3 hour late afternoon labs on a random day (or Fridays) and it turns out to be someone's birthday party or other social event.”

- Joshua Higgins

“Put in the effort and you will get where you want. If you try to cruise through engineering you will eventually sink. That said, get a healthy study routine going early on and ask for help if you don't understand something. Don't do your learning in study week because you will panic and forget things. Set 2 or 3 alarms when you have morning tests/exams!”

- Joshua Higgins

“If you are having difficulty with anything, the lecturers know what they're on about so ask them about it. The first thing you should do is walk around the whole campus; you never know when you'll randomly have a lecture in Law and have no idea where it is.”

- Nicholas Browning

“Physically attending lectures helps a lot... Getting to classes 5 minutes early makes sure you get a seat, and possible hints for labs.”

- Phillip Meng

“There is a club for just about everything so join up if there's a hobby or sport you want to learn or pursue.”

- Russell Bennett

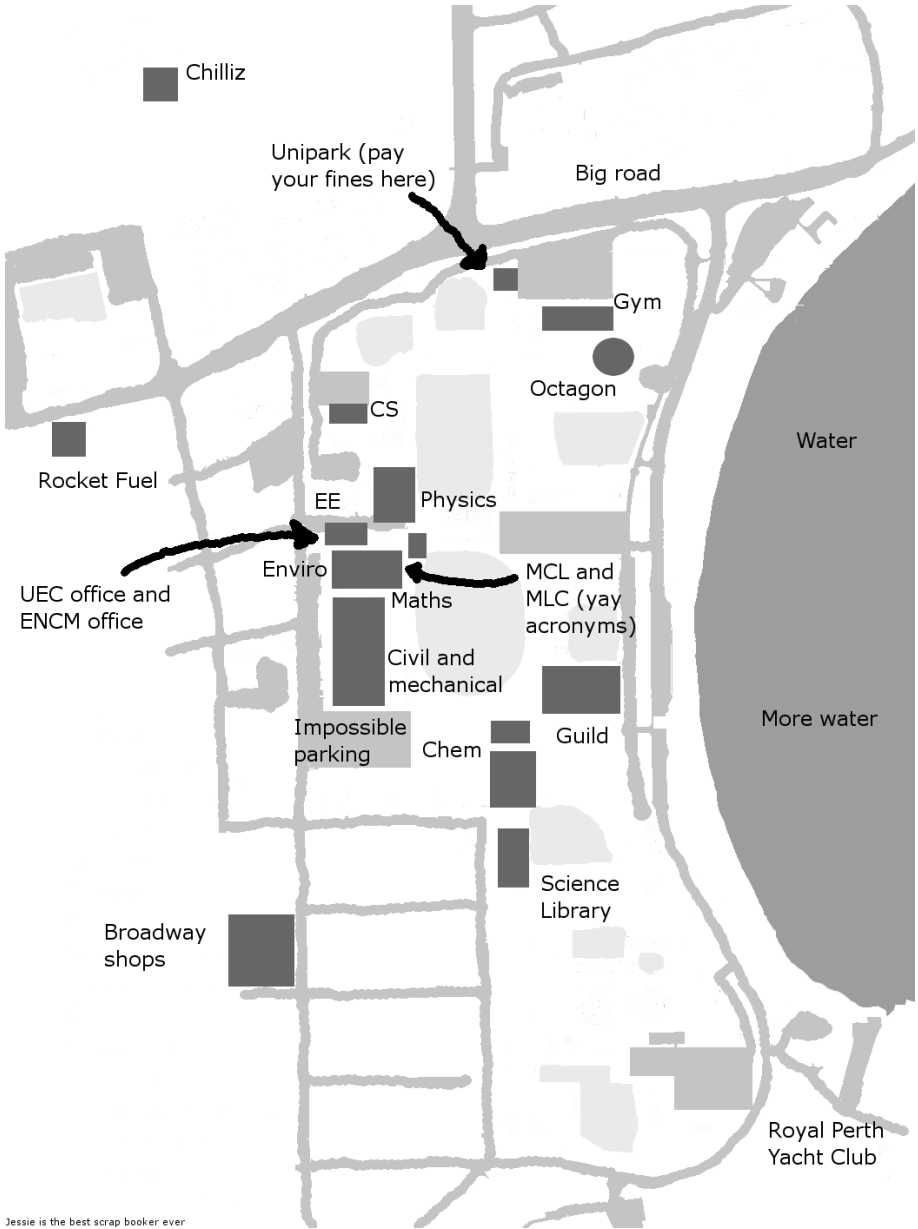
“There are girls' showers on the third floor of the ENCM building. The best toilets are in the Arts building because students in Arts apparently crap with pens and it is frickin' hilarious”

- Anon.



THE 2009 ECM GIRLS' AFL TEAM WHO BEAT LAW!

MAP



Jessie is the best scrap booker ever

Note: unimportant buildings and landmarks have not been included.

DETAILS ON YOUR FACULTY SOCIETY

ABOUT THE UNIVERSITY ENGINEERS' CLUB

The University Engineers' Club (UEC) is the Faculty Society for all students studying in the Engineering, Computing and Mathematics (ECM) Faculty at the University of Western Australia. As a Faculty Society the UEC acts as a medium between ECM students, the ECM Faculty and the UWA Student Guild. The UEC is run by students, for students. UEC Committee members sit on a range of boards and committees at a school, faculty and university wide level to represent ECM student concerns. So if you have a concern – let the UEC know! The UEC also organises and coordinates a range of career, educational, social and sporting events to give ECM students as many opportunities as possible.

HISTORY

Engineering was one of three initial Faculties at the University of Western Australia. In 1913 the Engineering School was established miles from anywhere in the bushlands of Crawley Bay in the old homestead of Sir George Shenton. The School buildings at the time consisted of the old homestead, a large stable, some low lean-to sheds and three milking sheds.



1933 ANNUAL BALL

In 1919 the ranks of the School were swelled by the return of ex-Serviceman and the current dance craze led to the holding of the first Engineering ball that year. No records of this remain until 1921 when a general meeting was held on 20th June to elect a Ball Committee. The success of these early balls resulted in the formation of the Club.

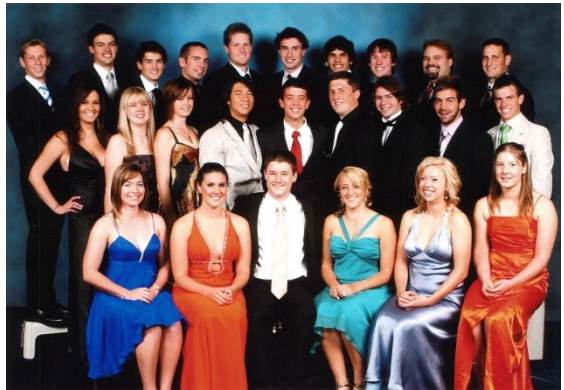


THE 1951 UEC COMMITTEE

The University of Western Australia Engineers Club (UEC, for short) was formed on 8th September 1921. A Mr. Morrison moved that an organization to be known as D.B.A. (Dirty Bastards Association) be set up. This was amended to D.B.A. Club and was launched onto the university. Some dissatisfaction may have remained in the minds of the committee as to the interpretation given to the name,

as on 26th May 1922 a Mr. Lemon obtained a change of name to University Engineers Club.

From these simple beginnings as a committee to organise the annual ball, the UEC has grown into the Engineering, Computing and Mathematics Faculty Society and covers a range of student issues – not just social events. In fact, representing ECM students on educational issues is now the Club's top priority. However, the annual ball is still running and this year will be the 92nd Annual Ball – it is a night not to be missed.



THE 2009 UEC COMMITTEE

In recognition of the educational representation the UEC provides to ECM students the UWA Student Guild awarded the UEC the Best Faculty Society in both 2008 and 2009. You can help us win it again in 2010!!

2010 UEC COMMITTEE

President	Robbie
Vice President Education	Ra
Vice President Social	Jessie
Treasurer	Erin
Secretary	Padams
Mechanical School Rep	Kate
Environmental School Rep	Matt
CSSE School Rep	Jad
EESE School Rep	Tom
Civil School Rep	Adina
Final Year Rep	Nicole
Penultimate Year Rep	SJ
Second Year Rep	Gina
Male & Female First Year Reps	THIS COULD BE YOU!!
Sports Reps	Hendo and Lana
Finance Officer	Hag
Equity Officer	<i>Position yet to be filled</i>
Merchandise & Promotions Officers	Dave, Phil and Brad
Publications Officers (THEBSEs)	Alex and Jarse
Webmaster	Brock

For contact details for all of the UEC Committee members please visit:
<http://www.uec.org.au/node/16>



ENGINEERS - PIMPIN'

2010 UEC EVENTS

Date	Event
19 Feb	O-Day
22 Feb	Uni starts (not really an event)
26 Feb	First weekly BBQ
5-7 March	Fresher camp
8-12 March	Link Week This includes voting for the UEC First year representatives
12 March	TWOSS (Third Week Of Semester Show)
24 March	Graduate Networking Dinner
21 April	PROSH
7 May	92 nd Annual Ball
28 May	Semester 1 ends

And more! Here are just some of the other events you can look forward to over the coming year once we start procrastinating from our studies and start organising these events:

- Vacation work expo – you need vacation work experience to graduate from your degree and this event will help you get that work!
- Massive cocktail party
- Quiz night
- Engineers vs. lawyers grudge matches – includes a women’s AFL match and a men’s rugby match
- Tug of law
- First year dinner – this one is just for you!!
- ...and even more that I can’t remember!

UEC CONTACT DETAILS

Email	secretary@uec.org.au
Website	http://www.uec.org.au/
Facebook	Search for “University Engineers’ Club” Or type in http://www.facebook.com/group.php?gid=6510787593
Visit our office	Head to the ECM Faculty reception on the 2nd floor of the Electrical Engineering Building and ask for the UEC
Post	University Engineers' Club c/o Faculty of Engineering, Computing & Mathematics M017, University of Western Australia 35 Stirling Highway, Crawley WA 6009



ENGINEERS - DEFYING GRAVITY SINCE 1921.

2010 UWA INTER-FACULTY CALENDAR

SEMESTER 1

Date	Sport	Venue
3 March	Soccer – 5 a side (Men & Women)	James Oval
10 March	Softball (Women)	James Oval
17 March	Cricket – Super 8's (Men)	Sports Park
	Softball Finals	James Oval
	Cricket – Super 8's	Sports Park (Lower)
19 March	Ivor Jones Cup – Rugby 7's	Riley Oval
23 March	T20 Staff vs Students Cricket Match	James Oval
24 March	Cricket – Finals	James Oval
	Touch (Mixed)	Old Chemistry
31 March	Squash (Men & Women)	Recreation Centre
	Table Tennis Doubles (Men & Women)	Recreation Centre
	Tennis Doubles (Men & Women)	Recreation Centre
	Badminton Doubles (Mixed)	Recreation Centre
21 April	PROSH	
28 April	Football – 9 a side (Men)	James Oval
	Netball (Women)	Tennis Courts
5 May	Football Finals	James Oval
12 May	Basketball (Men & Women)	Recreation Centre
19 May	Basketball Finals	Recreation Centre
28 May	Semester 1 ends	

All competitions start at 1:15pm on a Wednesday unless indicated.

There are also other sporting opportunities at UWA such as:

- UniGames – an annual sporting competition where students from universities all around Australia compete
- Sporting clubs
- A very affordable gym
- And more!

For more information contact:

Thomas Henderson sportsm@uec.org.au

Lana Dzananovic sportsf@uec.org.au

Enjoy yourself!



Studying at university is a once in a lifetime opportunity and UWA has a fantastic campus. Make sure you take advantage of all of the opportunities UWA has to offer and make the most of your time at university. You never know what you might be missing out on!

Thank you for reading. We hope you have found some of this information useful. If you have any feedback or questions please don't hesitate to contact us.

All the best for your studies and time at UWA.

How to become a member of the UEC

Sign up at O-Day

or

online at <http://www.uec.org.au/node/180>

This page intentionally has content.

This publication made from 100% recycled exam papers.