INQUIRING MINDS
Using research to engage students’ imagination and creativity

DEGREES OF DIFFERENCE
How on-the-job experiences can shape your studies

ENGAGE. INTERACT. INSPIRE
Students reveal their deans’ hands-on roles in research and teaching
One of the four pillars of the UTS strategy is the UTS Model of Learning. As a particular approach to learning and teaching, this UTS model weaves three distinctive threads – research, professional practice and exposure to the global workplace – into a singular, inspiring, often challenging, but always dynamic, student experience.

It is no wonder UTS was the only university to be consistently top rated across all four discipline areas in the final years of the Australian Government’s Learning & Teaching Performance Fund (2008 and 2009).

With its three threads so neatly woven together, its application in the classroom (and beyond) so second-nature, and its high-quality outcomes so typical, it is easy to forget that a UTS learning experience is exceptional.

Which is why this special teaching and learning issue of U: magazine is so important. The pages that follow shine the spotlight on research-inspired and integrated learning at UTS – what it can look like, how it encourages discovery at undergraduate as well as higher levels of study, and how it provokes UTS students to engage creatively and technologically with their chosen fields.

Practice-oriented learning also features in this issue. Indeed, the magazine itself is a sterling example of practice-oriented learning in action, for every article is authored by a UTS student. First-year undergraduate journalism students through to postgraduates researched and penned the stories that follow. I take this opportunity to congratulate these students for bringing the UTS model to life in their own distinctive way.

You will also read about the learning that takes place off-campus in workplaces here and overseas. Exposure to professional practice and diverse communities not only provides UTS students with the opportunity to understand how their ideas and knowledge can be realised, it also provides them with a safe environment in which to push the boundaries of what is possible and gain positive outcomes from any failures, it brings to life the relevance of working in teams, of critical and creative thinking and of communicating in different contexts, and it starts students on the path of developing the professional networks that will help them build successful careers in the years ahead.

In many ways, the UTS model operates like a skeleton key, opening doors for students before and after they graduate from UTS, by providing them with access to cutting-edge knowledge and technologies within a proven learning environment in which to flourish.

I suspect many students do not recognise the true value of their UTS learning experience until they have left university and embarked on their careers. Well not to worry, the UTS model’s three distinctive interrelated features set the foundations for students to imagine, inquire, discover and contribute throughout their lives.

In all these multifaceted ways, the UTS Model of Learning supports students to unlock their potential.

Shirley Alexander
Deputy Vice Chancellor
( Teaching, Learning and Equity)
Photographer: Joanne Saad

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The University of Technology, Sydney’s vision is to be a world-leading university of technology. Our purpose as a university is to advance knowledge and learning to progress the professions, industry and communities of the world. Our values - to discover, engage, empower, deliver and sustain - guide our performance and our interactions with each other, with students, our partners and the wider community.

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When you think of studying physics at university, playing with Hot Wheels cars and shooting arrows probably aren’t the first things that come to mind. But then again, a physics degree at UTS is unlike those at most other unis.

Second-year Bachelor of Science (Applied Chemistry) student Alex West admits physics was the one subject that “freaked me out” before coming to university.

“I didn’t study physics for the HSC, so the prospect of doing it first-year at uni was a little scary. However, I soon discovered, it wasn’t like that at all. I found the material really stimulating and made a lot of sense as the theory and prac linked together well.

“The subject started off with a bang! They didn’t waste any time getting us straight into the practical things; and you have to admit it’s pretty cool when your first lab involves testing out Hot Wheels cars and constructing huge ramps for them to speed down.”

But it’s not all fun and games. West says there’s a serious side too.

“We had to use the equations we learnt in the lecture to manipulate the distance and accuracy of the car. It was a big competition among the class, and whoever could build the highest, but also most accurate, ramp won. A bit of competition is always good to get you thinking.”

Associate Professor in the Faculty of Science’s School of Physics and Advanced Materials Les Kirkup says incorporating practical experiences and research into classes keeps students intrigued and engaged.

“We like to try and use the research we do as inspiration. We try to weave it in seamlessly to the lessons and give students a reason for knowing about it.”

One example is the Mind Switch research project, which saw a group of UTS academics – Research Associate Yvonne Tran, Professor Ashley Craig and Dean of the Faculty of Engineering and Information Technology Professor Hung Nguyen – develop hands-free technology to improve the quality of life for disabled people.

Kirkup then incorporated this research back into the first-year physics program.

“Students are generally academically able but have often avoided maths and physics in high school. Our challenge is to turn that around.

“I like to use real-world applications the students can relate to, and Mind Switch intrigues everybody,” says Kirkup.

“We used it as an example to teach first-year students about electricity, which is traditionally a very difficult subject because it introduces a number of challenging concepts, such as electric fields and electric potential.

“However, using the research from Mind Switch we can demonstrate the way in which the electrical activity of the brain can be sensed and picked up on scalp electrodes, which can tell us, for example, about how relaxed a person is.”

In recognition of his work, bringing research-inspired learning into first-year science degrees, Kirkup was earlier this year awarded a National Teaching Fellowship by the Australian Learning and Teaching Council.

“My fellowship is about changing practice towards inquiry learning, especially at first-year level, to better reflect the processes and practices of science and scientists,” says Kirkup.

“That means engaging the creativity and imagination of students, their ability to analyse and their ability to work in groups, allowing them to investigate for themselves rather than following some step-by-step process.”

Ayaka Goto, also a second-year applied chemistry student, says Kirkup’s style of teaching makes science easier to understand.

“What was great about so many of the experiments was that you had the freedom to do it your own way. Often there’s not a given set of instructions, so you have to use what you know to figure things out for yourself.

“In one lab we got to use bows and arrows. Apart from having a lot of fun, we were testing different factors to see how they influenced the flight time of the arrow. We tested different strings and how far those were pulled back, which was really interesting.”

According to Kirkup, encouraging research-inspired learning early in a degree is vital for increasing well-rounded science graduates and the pool of future research students.

“UTS has ambitions to significantly enhance its research profile. This can be interpreted and enacted in many ways, but what is for certain is that UTS needs more PhDs and postdocs to contribute to the research efforts.

“Where will those PhDs come from? By-and-large they must come from our undergraduates; so there is a need to ‘switch on’ more undergraduates to research and that must happen in the first year of their studies.”

Kirkup adds, “Graduates from UTS have gone to work as medical physicists, patent attorneys, in meteorology, in finance – modeling stock market variations – and one is even working as a senior lecturer at the University of Sydney.

“Whether or not students go into a career in science, the experience of learning through inquiry will change them forever and shape the way they see and interact with the world upon graduation.”

Sarah Gillett
Bachelor of Arts in Communication (Journalism)

Andrew Fitzsimons
Bachelor of Science (Chemistry)

Photographer: Jessica Black

Comment on this article at newsroom.uts.edu.au/news/2011/07/inquiring-minds
“WE LIKE TO TRY AND USE THE RESEARCH WE DO AS INSPIRATION. WE TRY TO WEAVE IT IN SEAMLESSLY TO THE LESSONS AND GIVE STUDENTS A REASON FOR KNOWING ABOUT IT.”
Too many students fail to realise how much potential they have to express their creativity through their degree structure and university experience.

I graduate this year with a double degree in engineering and international studies. Over the last six years, I’ve completed two internships – one with the global consulting firm CH2M HILL, the other with Sydney Water. I’ve also studied overseas on three occasions, most recently in China as a recipient of the Prime Minister’s Australia Asia Endeavour Award – a competitive, merit-based scholarship that enables Australians to undertake study, research and professional development overseas.

Tailoring your degree may at times seem like bending the rules, but in reality it’s simply the skill of negotiation. If you have vision and reason behind what you want to do, the university can be amazingly supportive in making it happen.

The flexibility and student-focused nature of UTS has played a major role in enabling me to shape my degree. With these diverse experiences, I’m now working as a water specialist in a major Australian design firm in Beijing.

I graduate, hoping that in sharing these experiences you too can shape your degree to work for you.

Katrie Lowe  
Bachelor of Engineering/Bachelor of Arts in International Studies  
Photographer: Katia Sanfilippo  
Comment on this article at newsroom.uts.edu.au/news/2011/07/tailored-learning

The first is to **find a passion.** No one ever really knows exactly what they want to do in life, but the most amazing people I’ve met have all had a passion. Identifying yours will definitely help in targeting the opportunities that are right for you. Mine has been water, particularly water supply and sustainable water resource management. This is something I set upon during my first internship experience.

The second tip is to **read your emails.** Talking to people and networking are crucial, but some of the biggest breaks I’ve had I found through uni notices – I’m talking fully funded trips to study abroad, paid internship positions, and seminar and workshop opportunities. I acquired my first internship after attending a seminar I found out about via a uni notice; the same goes for my Endeavour Award.

Tip three is to **get involved.** Say ‘yes’ more often, and go for any opportunity that sparks your interest. A few days of effort to complete an application is little compared to the life-changing experience you receive when you do succeed. No one will know you are interested in being involved until you submit that application, and if it doesn’t work out for you now, just keep trying!

My fourth tip is to **plan early.** One of the biggest hurdles I had to overcome was my subject plan. Think about completing prerequisite subjects early in your degree, as it will allow you to maximise your study opportunities if you decide to go overseas or study while undertaking an internship.

Also, having an idea about when particular subjects are run (Autumn or Spring semester) really helps in strategising your study. And don’t forget to explore options like night and holiday classes – a tailored degree doesn’t necessarily mean an extended degree.

The final tip is to **get to know your lecturers and faculty administration.** In reality, they’re your ticket to making the system work for you – for the approval of e-requests, exchange subject choices and obtaining credit for subjects.

In my eyes, many of these experiences have very little to do with my initial choice of degree and more to do with my determination to fashion it into something of my own making.

It’s the lunches and afternoons spent talking to administration, negotiating credit for subjects and investigating scholarships and opportunities to go abroad that have enabled me to achieve what I have.

What I’m describing is the experience of a ‘tailored degree’. That is, knowing how to make your degree work for you as an individual – something I think many students only realise far too late, and high school leavers are not told nearly enough about. I have five key tips to do this:
In 2007, Jordan Dorjee was placing last in his Year 10 class at Sydney Grammar School. Unmotivated by other subjects, he signed up to study music. It proved to be a life-changing decision. "When I picked up music I started pulling my socks up," says Dorjee.

By the end of Year 12, the young musician graduated with an ATAR of 92.55 and enrolled in the first intake of UTS's Bachelor of Sound and Music Design.

A self-described ‘turntablist’, Dorjee unwillingly admits he also plays the piano and guitar “like everyone else”. However, “I knew the kind of music I create meant I wouldn’t be able to get into the Conservatorium of Music.”

Dorjee also liked the fact the course – which teaches audio production skills, like producing sound for films, video games, television and advertising – would help him find work in the industry or even set up his own sound production company.

“I thought this course offered a lot more practically as well. If you want to be pragmatic about creating music, you want to think about how you’re going to support yourself,” he says.

Professor of Music, Sound and Interaction Design Kirsty Beilharz is the course coordinator of the degree and was Dorjee’s tutor in the Contemporary Music and Electronic Music Composition subject last year.

An advocate of innovation, Beilharz recalls one assignment, from the Sonology subject, in which Dorjee and his team created their own software and used Wii controllers to manipulate sound.

Beilharz says, “They hacked it, essentially, to allow them to make a music-mixing, kind of live DJing environment with just the motion and the buttons of the Wii. It became much more intuitive.”

Dorjee says, in this subject, “We learnt the physics of sound – what sound is, how it travels, the acoustics. Then we learnt to use musical software to manipulate and synthesise sound. One of our assignments was to generate an auditory environment which would be interesting for the listener to be enveloped in."

The young musician is all for pushing boundaries. In addition to his studies, he has teamed up with fellow UTS student Emily McDaniel – who started the monthly experimental musical event Refraction – and collaborated with PhD student and Sound and Music Design Casual Academic Roger Mills in ‘networked improvisations’.

One recent networked improvisation saw three students from UTS – Dorjee, Mills and Hugo Smart – and six from the Western Australian Academy of Performing Arts improvising via web hook-ups (they even incorporated the sound delay as part of the music creation). The sounds were then beamed between Perth and Sydney and broadcast live at a music venue in the WA capital.

For Dorjee, the ability to experiment is one of the best parts of his degree. “The course helps you develop an idea there are no rules in music.” Where he ultimately takes that, we’ll just have to wait and see.

Clare Blumer
Bachelor of Arts in Communication [Journalism]
Photographer: Paul Threthny
Comment on this article at newsroom.uts.edu.au/news/2011/07/future-sounds
As more workplaces go global, students are increasingly taking advantage of experiential learning programs that combine study, travel and community service.

One of Nathaniel Wiltshire’s most memorable BUILD experiences is speeding through the slums in Mumbai in the back of a rickshaw with program coordinator Fiona Tschaut.

The overseas learning experience, which took place in March this year, was a chance for the Master of Business student to see the benefits of micro-finance first-hand.

“It was amazing walking through the maze-like streets and alleys, seeing how much activity there was,” says Wiltshire.

“Regardless of the time of day, street vendors were busy selling fresh produce, barbers were cutting hair and shaving customers with old-fashion razors, and of course, livestock were wandering around looking for food. We witnessed many micro-businesses set up using loans as small as the equivalent of $200.”

Tschaut, UT斯International’s Coordinator of Leadership Programs, says BUILD (Beyond UT斯 International Leadership Development) was started last year as a way to provide students with new chances for extracurricular, international leadership development. “We remove barriers and create networking opportunities across faculties for like-minded students.”

Compulsory events include seminars, lectures, networking sessions and social occasions. However, the program also offers a range of electives including internships, conferences, volunteer opportunities and global exchange.

Wiltshire says, “BUILD’s not just for undergraduates; postgraduates get just as much out of it as it’s open to all different levels of experience and knowledge.”

Final-year Global Studies (Journalism) student and founding board member of the BUILD Student Society Caitlin Hill recently travelled to Dubai to attend the Education Without Borders Conference.

The international student conference aims to understand and generate solutions for some of the world’s greatest challenges including global warming, sustainable development and renewable energy.

From the 1000 student attendees, Hill was one of 35 selected to present at the conference (an honour that also saw her receive a full travel scholarship to the event).

Hill has taken up other opportunities: through BUILD, she says, “I’ve had many experiences both locally and internationally. Locally, I’ve been able to gain a volunteer managerial position with The Oaktree Foundation. In the past nine months I’ve also been overseas four times.

“I volunteered by teaching English in a school in Ghana, made a short visit to an orphanage in Kenya, attended conferences in Malaysia and Dubai, and also represented UTS at the World Model United Nations in Singapore in March this year. I’m heading to East Timor in July and then hope to travel to Nepal in November.”

Such opportunities, says Hill, “take students beyond the classroom and into the working world, helping them develop into passionate leaders, networkers, negotiators, cross-cultural communicators and global travellers.”

BUILD can also offer students the opportunity to participate in externally run international education experiences.

Last year, communication and law student Charlotte Inglis undertook a global leadership course in Prague. The course, held during the mid-semester break, was run by the Australian Institute for Mobility Overseas (AIM Overseas).

Inglis says, “I received funding; half was from BUILD at UTS, and half was from the leadership organisation that ran the course.”

She says programs like AIM Overseas and BUILD offer students the chance to engage in university study, as well as cultural activities and community service.

“One of the components of the AIM course was working in rural Czech Republic. That was incredibly intense; right at the beginning of the course,” says Inglis.
“THESE OPPORTUNITIES TAKE STUDENTS BEYOND THE CLASSROOM AND INTO THE WORKING WORLD, HELPING THEM DEVELOP INTO PASSIONATE LEADERS, NETWORKERS, NEGOTIATORS, CROSS-CULTURAL COMMUNICATORS AND GLOBAL TRAVELLERS.”

“The course teaches you how to relate to people who’ve had a totally different life experience.

“There’s a sense of community, a sense of purpose, and everyone made really strong friendships and bonds over there. I now have friends from Queensland to Mexico.”

While Hill agrees there are great opportunities on offer, she’s quick to add what you achieve is up to you as an individual.

“Students are expected to take initiative in coming to events or applying for overseas opportunities. The more you put into your BUILD experience, the more you get out.”

Dylan Barber  
Bachelor of Arts in Communication (Journalism)/International Studies

Hannah Jermy  
Bachelor of Arts in Communication (Journalism)

Photographs [N.Wiltshire] supplied by: Nathan Wiltshire
Photographs [C.Hill] supplied by: Caitlin Hill
Photographs [C.Inglis] supplied by: Charlotte Inglis

Comment on this article at newsroom.uts.edu.au/news/2011/07/building-success
Master of Architecture student Kimberley Merlino was a little intimidated getting on the plane to Los Angeles to undertake an internship with architecture firm Gehry Partners. But she needn’t have worried.

Merlino, who was one of four students selected to be a part of the two-month internship program, says, “I didn’t know what to expect, because it’s such a different kind of firm.”

Merlino says the program, which was established through architect Frank Gehry’s collaboration with the university, put what she had learned at UTS to the test. The experience also made her realise she’s better equipped for the workplace than she’d thought.

“I was in a team working on a project in France, and we were building models for that in the design and development stage,” Merlino says. “Gehry Partners use technology that UTS uses, and they use processes that we use here too. So we were aware of how to use the tools and technology, but Gehry Partners taught us different ways of applying what we had learnt at UTS to an actual project.”

UTS has long supported opportunities for exposing students to professional practice, encouraging them to undertake internships and work placements to complement their formal and theoretical learning in the classroom.

Science student Francesca Gissi undertook a full-time, one-year internship with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in 2008. Though she still has another semester until she completes her degree, Gissi, who continues to work in the Aquatic Ectotoxicology group at CSIRO, says she’s found her future career path.

“I’m still there and I’m still enjoying it. In a field as broad as science, you might not have an idea of exactly what you want to get into; you might know what you enjoy, but you don’t know where you’re going to end up.

“For me working at CSIRO has been great because I found where I wanted to go – I got some direction and some fantastic experience. I learnt how to use a whole range of instruments and different experiments, and about working with people and report writing for clients.”

Exchange students have been quick to embrace this approach to learning too. Mathias Scheurer, from Germany, is completing a semester of study in Sydney as part of his physics degree. He’s making the most of his time, working on an electrodynamics research project with UTS Lecturer Matthew Arnold.

Scheurer says, “I have a lot of freedom, which I really appreciate. Most of the subjects that I did before, you have to do your exercise sheets, your problem sets; you’re really guided.” At UTS, however, “you get experience with developing ideas”.

He believes this experience working on the project will give him an edge when he returns to Germany where internships are optional, not integrated into a degree.
Integrated exposure to professional practice is also an essential element of study in the Faculty of Nursing, Midwifery and Health. Bachelor of Nursing students undertake 10 placements, totalling 21 weeks, over three years.

“My most recent clinical placement was in the intensive care unit, cardiothoracics, at Royal North Shore Hospital,” says third-year nursing student Nick Adam. “That was the best placement I’ve had so far. Being a third-year I was able to do an awful lot more than before.

“In first year and second year you have a very limited scope of practice because you’re only just starting to learn, but by third year you’re much more confident. I had lots of interesting patients, lots of very sick patients, so it’s a really intense few weeks. You see people at their best and their worst and you find the best and worst in yourself.

“I got to do resuscitations, intubations, intravenous lines and all of that intensive stuff.

“The staff there are excellent, really willing to teach and answer all your questions.” Adam says for a degree as hands-on as nursing, work placements are essential.

Fifth-year public communication student Nicola Pasternak spent two weeks with advertising firm JWT, working for both the Sydney and international branches.

“The main clients were Schick, Smirnoff, Nokia, Johnson & Johnson,” recalls Pasternak. “It’s very different to how uni teaches you.

“Occasionally I’d get given a brief about a body of work they were doing, but usually it was, ‘Who has something for Nicola?’

“I’d get given stuff, have it explained to me and be given a deadline to complete it in that time.

“Doing an internship makes your degree real. I was really worried that I’d be unprepared, that I’d have no idea, but they kind of expect that. I felt like the more responsibility they gave me, the better I was able to rise to the occasion. “

“i found where I wanted to go - I got some direction and some fantastic experience.”
Hayden Guthrie agrees the challenge of a work placement is part of the thrill. The law student spent three months over the summer break as a clerk for law firm Freehills.

“Do you effectively the work of a graduate lawyer, so what you’ll be doing when you start full-time – court work, going to client meetings and that sort of stuff. You do two rotations through different practice areas. The ones I selected were litigation and the projects group. There were 33 clerks so everyone’s in different areas; tax, corporate, etcetera.

“As a firm it’s really friendly and more social than some of its competitors, and that really stood out to me.”

While Guthrie will enter the Freehills graduate program, he’s quick to point out students have a number of work options to choose from including criminal or family law practice, becoming a public prosecutor, working with the government or non-government organisations or going into research and academia.

And though undertaking a clerkship isn’t always necessary, if you’re hoping to work in commercial law, “then it is an important process to go through”.

For electrical engineering student Natasha Kelaher, internships bridge the gap between theoretical learning and the workplace.

"Before doing your internship you’re not exactly sure what part of your course is relevant to your career," she says. "By going out into the workplace for six months you really get to see other graduate engineers and exactly what they do."

She also adds that integrating the theory taught in lectures with their practical application in lab assessments is key. "Internships and lab assessments allow you to be able to determine what part of theory becomes relevant in real life, which makes you a better engineer."

"As an engineer one of the requirements is that you’re able to apply theory in an innovative way. We’re taught to do that right from the start; we’re taught that the practical is important and it was given the same weight as theory in our education."

Industry experience is also imperative for accounting student Emre Mehmet. As part of the selective Accounting scholarship program at UTS he is one of 35 to 50 students each year who complete a full-time degree as well as two six-month, full-time work placements.

Mehmet undertook his first placement at American Express, where he did "weekly cost reports, reconciliations and weekly journal entries."

"I was doing internal audits for the David Jones account. American Express recently bought out the David Jones store card and now they run and manage that. AMEX is very transactional-based, so I was also looking for amounts that couldn’t be traced back to a customer or a merchant."

Mehmet, who’s now undertaking a placement at TNT Express, says, “It’s quite hard when you’re doing two or three subjects at uni and you have to work full-time as well.

“You’re at uni and work five days a week, nine til five and you’d rather be out. But that practical experience really does give you that extra step in front of other graduates going for jobs.”

Having found work through her internship, Gissi agrees. “A lot of employers like to see some sort of work placement experience, because that’s where you’re really putting the skills you’ve learned into action.”

Adam adds that for nursing, “Clinical placements are a really big job-finding opportunity.

“You meet the staff, you meet the managers, and they get a good idea of what you’re like, when you’re working for them."

“If you play your cards right, you’ve kind of got your foot in the door.”
Industry experience is also imperative for accounting students, with many students each year who complete a full-time program at UTS. Among them, Mehmet undertook his first placement at TNT Express, saying, “It’s quite exciting to actually involve yourself in a company.”

The placement experience has provided Mehmet with valuable exposure to new areas of engineering and skill development. “You get experiences you can’t really get in the classroom,” he notes. “You have the opportunity to work alongside professionals and learn from them.”

In addition to Mehmet’s experience, there are many other students who have benefited from placements at UTS. For example, Emre Mehmet, who’s now undertaking a placement at American Express, has been able to apply the skills he’s learned into action. “I was doing internal audits for the David Jones account. American Express recently traced back to a customer or a merchant.”

For those who want to move into academia, “I say to students, ‘You can do whatever you want’. If you want to go into industry, you can go that way. If you want to do a PhD, you can go that way too. You get into the position where you can do both.”

Sonja Caraian, who completed an internship and capstone project with RobotAssist last year, is this year beginning her PhD at UTS. Her research will focus on furthering the robot’s ability to interact with people and will include gesture recognition.

Caraian says RobotAssist has offered her exposure to new areas of engineering and skill development. “You get experiences you can’t really get through the mechanical and mechatronic engineering course. It’s also an introduction to a whole other direction that I don’t think a lot of people consider, and that’s going into academia and research.”

She says Kirchner’s teaching style and guidance were instrumental in developing her skills in robotics and mechanics. “He doesn’t teach in the conventional way, it’s more guidance and helping you learn things yourself. You have a lot of autonomy and make your own way and your own decisions.”

Kirchner says, “It’s all about developing lifelong independent learners who graduate with theoretical knowledge and real-world skills.”

James Bullen
Bachelor of Arts in Communication (Journalism)
Photographer: Jessica Black
Comment on this article at newsroom.uts.edu.au/news/2011/07/autonomy-and-action

Photographer: Jessica Black
STATE-OF-THE-ART LEARNING SPACES
BUILDING 5 BLOCK A

A day in the life ...

Recently renovated student spaces are breathing new life into the campus. Wired with cutting-edge technology and finished with the comforts of home, we take a look at how students are using the new spaces on any given day.

8am Students in the throes of all-night study sessions or catching some quick shut-eye before class; limp bodies are draped over desks, and faint sounds of snoring can be heard.

I've been up all night and here since 4am writing a paper. This place is quiet, even during the day when it is packed, and then it makes for good people watching.
Joseph D, postgraduate student

2pm The lunch rush is over and though the space remains busy, it resumes a quiet and respectful air.

This environment is cool. I like the option of relaxing or working to the sound of academia floating around.
Victoria Pearson, Bachelor of Arts in Communication (Journalism)

12pm Students file out to find some food, then make their way back, sandwiches in hand. The space becomes a social beehive, filled with the excited buzz of conversation.

4pm Mid afternoon and students take a break. Their stuff scattered around, their clothing, books, computers, notes, food and their digital devices.
6pm All the private study rooms are booked by student groups rehearsing presentations.

8pm Classes have finished and students pass through the space, bumping into friends working or watching TV.

Now we have somewhere new to study that's colourful. You can study in a way that isn’t pressured; it actually recognises the way that students study.
Madi Gates, Bachelor of Business

It boosts the overall morale of students. If you have a space that is tech-friendly and fun, then it motivates you.
Ray Kumar, Bachelor of Business/Bachelor of Law

Green is scientifically proven to help you concentrate. Green stimulates learning.
Danny An, Master of Information Technology

In the students’ own words, the space directly responds to their needs. Even though the building is brimming with technology – private rooms equipped with smart boards can be booked for group study sessions through the nifty electronic booking system – the casual seating, televisions and snack machines let you know the space doesn’t take itself too seriously.
One of my favourite lectures, ever, was given by Professor Theo van Leeuwen on the subject of music,” says media arts and production and international studies student Georgia Symons. “He brought his keyboard with him and played us bits of Billie Holiday to demonstrate some basic musical structures in song writing and how and why these are used in various media.

“You may not see deans swapping their office chairs for lecture theatre podiums and pianos at all universities, but at UTS, inspiring students through teaching is the norm.”

Van Leeuwen, who is Dean of the Faculty of Arts and Social Sciences (FASS), believes music is an important form of communication. “And that’s the spirit in which I lecture about it. It’s a fundamental part of most of the media we study in the communication program and it also happens to be an area on which I have done quite a bit of research over the years.”

Symons says van Leeuwen, “is a really approachable guy, and the way he runs his faculty makes it possible for the students to become the self-starting creative professionals our industries demand.”

Van Leeuwen says two-way communication with students just makes sense. “It is vital for students who aspire to work in the creative industries to encounter inspiring people, inspiring ideas and inspiring real-world examples; and to have plenty of opportunity to practise their arts and liaise with the relevant arts communities and industries while they are studying at university. To facilitate that is our number one priority.”

While FASS students are inspired to be pro-active and practise their art, Dean of the Faculty of Law Professor Jill McKeough encourages her students to hold on to their idealism.
This year, in association with the UTS Law Students’ Society (LSS), McKeough established the Brennan Justice and Leadership Program. It was named after Sir Gerard Brennan – former Chief Justice of the High Court and former UTS Chancellor.

LSS President and fifth-year Bachelor of Law/Bachelor of Arts in Communication (Public Communication) student Codie Asimus says the program is the most exciting opportunity offered to law students in his time at UTS. (Already 400 students have signed up to participate.)

“Acutely aware of the disproportionate rate of depression among law students in comparison to those studying other degrees, Jill saw the program as an opportunity to provide students with a balance and an avenue to seek satisfaction in their study of law,” says Asimus.

In order to complete the program, and qualify for the award, students accrue points by attending lectures, discussion groups and undertaking voluntary activities. Asimus says it offers students a way “to actively seek justice and ‘give something back’, rather than being mere passive absorbers of knowledge.”

McKeough adds that she wanted to inspire a context in which law students can flourish with respect to their education, welfare and employability.

“Students want to have the capacity to contribute positively to broader society and have a ‘justice orientation’. Along with all of this, it’s important to find personal happiness and satisfaction. Research done by the Brain and Mind Research Institute has emphasised the need to ensure the intrinsic values of law students are supported and not damaged by their education.

“Fortunately, all these things tend to cluster together, and enhancing one aspect of your life and education will assist in achieving aims across the board.”
Student happiness and satisfaction are also key in the Faculty of Design, Architecture and Building (DAB).

DAB Dean Professor Desley Luscombe says, “Institutions can be daunting and it’s very important to me to try to break down barriers. The more I can engage with students and teaching the less ‘removed’ I am from the essence of what a university should be – a place of learning.

“I’m a doctoral supervisor for a number of PhD candidates and I also lecture in first-year architectural history and theory. The subject builds on my research into representations of modern twentieth century architecture.

“Over the 26 lectures, I introduce the students to 44 case studies with technical drawings. We consider topics like industrialisation, impacts of technology and the modern concept of space. They’re compelled to ask, What’s important in this design and how does this importance relate to the full composition?”

Architecture student Nicola Balch says being taught by the dean puts students more in touch with the faculty; making university feel less like an institution and more like a home-base for learning.

“I was privileged to have Desley as a lecturer for my architectural history and theory subject. Each lecture was so rich with content, it was obvious how much time and effort she had put in. As a mentor she makes the faculty less bureaucratic and more open in nature.”

Luscombe says there are benefits for her too. “Seeing students succeed is very rewarding. They make me think and develop in new ways, critique my assumptions and demand my engagement.”

RailCorp Manager of Business Management Methodology and part-time business PhD student Matthew Rathinam agrees it’s all about rising to the challenges.

He feels lucky to have an understanding supervisor in UTS Business School Dean Professor Roy Green, especially when work and family pressures collide.

“Doing part-time research is impossible unless supported and inspired by a supervisor who can treat research students in a highly professional manner,” says Rathinam.

“Roy is the expert in my research area of innovation and has published widely on innovation policy and management. He steers me in the right direction and provides me with an insight into the research topic, instead of just loading me with lots of ideas and information.”

Green says it’s the students’ commitment that is the key to success. “The school is fortunate to have students of the calibre of Matthew. He’s taken up the challenge of studying for a PhD while employed in a senior position in industry, and using his organisation as a source of data for the research.”

Master of Engineering student Ardi Handjojoseno says he also finds inspiration in the teaching of his dean, Professor Hung Nguyen.

“I feel lucky to have Hung as a lecturer. Not only is he fascinating, we have extra motivation from his experience as an academic and practitioner. I really appreciate his presence to help his students and his consultation time in the midst of his tight schedule as dean.”

Nguyen says teaching and PhD supervision help him keep a close connection with students and to see how their research work can be used to update teaching materials.

“The course material is therefore state-of-the-art and is actually being implemented in my start-up companies: AIMEDICS and Aviator Controls. The projects that students are working on are usually relevant with potential significant impact to society and economy.

“I believe by introducing advanced subjects like Biomedical Instrumentation and Applications, which is a postgraduate subject but can be taken by undergraduate students as an elective, we are teaching students to understand in depth current technologies and presenting an opportunity to create innovative products-of-the-future for Australia.”

In the Faculty of Science, PhD student Valerio Taraschi is also benefiting from the mentorship of his dean – Professor Bruce Milthorpe.

“My supervisor is a mentor, a grip to the right methodologies and an active feedback for my results.

“Through his role of co-supervising my research degree, Bruce manages to guide my research aims and procedures. He has this broad knowledge and constant investigative approach and is a constant reference point for my studies and an inspiration for my eventual academic career.”

Milthorpe believes deans should be involved in the faculty’s research as much as possible.

“There are many time constraints on a dean, but with good supervisors and especially with good students, such as Valerio, it’s a joy to be part of the research team and to contribute as a team member.”

For third-year nursing critical care student Mickael Gieules, his dean’s research is vital to his studies as well.

Gieules says Professor John Daly’s textbooks – he’s written six – spark thought about the possibilities nursing provides.

In particular, says Gieules, Transitions in nursing: Preparing for professional practice, is an important resource for undergraduate students, aiding in the transition from study to professional practice.

“His research and documents cover areas which are not readily discussed,” says Gieules. “His texts comment on life beyond the degree, specifically the transition and evolution from a nursing student to a nurse and beyond.”

For Daly, it’s an honour and a privilege to be able to influence the growth and development of the profession. “Ideas are there to be tested and contested, of course. It’s important that students of nursing are engaged in these deliberations and debates. Once graduates, they have opportunities to lead, shape and transmit the evolving culture of nursing, including its contributions to global health. Consumers of healthcare are of course the beneficiaries of care provided by well-educated nurses.”

Just as society is the beneficiary of well-educated students.

Paolo Hooke
Master of Arts in Journalism
Photographer: John Donegan
Comment on this article at newsroom.uts.edu.au/news/2011/07/engage-interact-inspire
“After a night out, destroyed in the morning, I put my cup down and it left a perfect ‘Q’. I saw it as a message from the typography gods and obliged as their humble servant,” jokes second-year visual communication student Ethan Hsu.

At the time, Hsu, who has since created the font Orange Mocha Frappucino, was undertaking the Typography, Text and Form subject as part of his degree. He says it’s helped him gain a keener eye for detail and taught him many facets of design, such as spacing, proportion, cohesion and sensitivity.

“I became more observant of the world around me and found that type, and art, are most effective when you can relate them to everyday ideas.

“Since I was a child, I’ve been surrounded by Chinese art. My grandpa sold Chinese calligraphy paintings, my aunty was an architect working in Hong Kong, and my mum and dad both loved collecting Chinese art. I looked at a variety of past years’ works, and online designs for ‘Chinese fonts’ but I found most of them outlandishly cliché. I wanted to create a font that was more representative of my own personal Chinese perspectives.

“I drew a variety of fonts and styles, but during a class critique, the coffee font seemed the most relatable.”

Just how many coffees did Hsu have to consume to create his font? “Just the one. I don’t normally drink coffee!”

The font design project is the central focus of one of the typography subjects for first-year students; typography being a core strength of the Visual Communication program. It sees students create their own typeface comprised of the 26 letters of the alphabet, the numerals 0 to 9 and several common punctuation marks.

The Faculty of Design, Architecture and Building’s Associate Dean (Teaching and Learning) Dr Louise McWhinnie developed and, together with Lecturer Gerhard Bachfischer, teaches the subjects. She says it prompts students to explore their own cultural heritage and seek out influences from the world around them.

Fellow second-year visual communication student Emily Joannidis pursued her interest of Ancient Egypt while developing her typeface, Cleopatra Charm.

“I’ve always had an interest in Egyptian culture as my father was born in Egypt. Unfortunately I haven’t yet had the opportunity to travel there, so decided to try and immerse myself in the culture and its history.

“For inspiration I looked to hieroglyphics, ancient fresco paintings and mumified pharaohs, such as Tutankhamun. The letter ‘O’ was my favourite piece, it represents a cartouche.”

Over the past few years, the subject has achieved much success. In addition to receiving a UTS Learning and Teaching Award and an Australian Learning and Teaching Council Citation, McWhinnie says some students’ work has been published and commercially produced (some internationally through Font Factory). McWhinnie says, this kind of industry validation is important.

“A number of these fonts draw upon culturally diverse influences and have led to the development of new and diverse Australian fonts that are not only seen as a reflection of a multicultural country, but are also commercially viable.”

She urges all students to look beyond the comfort of books and computers for their ideas. “No design student, or even designer, should operate in a vacuum. Good designers are curious people, they are collectors.

“You really want students to understand that there is so much of their own experience that they can draw upon as designers, but also that there is a wide world out there for them to explore.”

Alison Brown Bachelor of Arts in Communication (Journalism) Photographer: Jessica Black

Comment on this article at newsroom.uts.edu.au/news/2011/07/fonts-of-knowledge
TO ADVANCE KNOWLEDGE AND LEARNING TO PROGRESS THE PROFESSIONS, INDUSTRY AND COMMUNITIES OF THE WORLD