

6

Life

As an

Undergraduate

Read this chapter if you would like the following issues addressed:

- What sorts of issues do students need to deal with as undergraduates?
- What mechanisms are available for dealing with various issues that arise?

Universities are significantly and fundamentally different places to secondary schools because they are places of learning, rather than places where students go to be taught. In a university, it is not only the students that are there to learn, but also the researchers and academic staff. This creates an environment which not only has a different culture, layout and scale, but different human dynamics. If one had to define the best outcome of university learning then this would surely not be a simple set of scholastic achievements but, more importantly, the development of the self awareness necessary for individuals to recognise their own capabilities, potential and limitations.

Helen Keller once observed that,

“...the best educated human being is the one who understands most about the life in which he is placed.”

In other words, one who has the maturity to understand his environment and limitations as well as potential. Unfortunately, not all university graduates develop this sense of maturity, with many having chosen to simply rote learn their way through the university system without developing the self awareness that is necessary for either professional success or internal peace of mind. In a nutshell, the entire undergraduate learning environment should therefore have a different feel to that of the secondary school because it is ultimately about self learning and the development of self awareness.

Most students cope well with the changing (and less structured) environment, and generally welcome it as a more

pleasant way of learning. Occasionally, however, students have difficulty making the transition from a taught environment to one where learning is more independent. In the early stages of university life, students can also have difficulties with the larger scale of the environment, compared with that in secondary school education. In this chapter we examine some of the basic challenges of life as an undergraduate in the Australian university system, and what sort of remedies are available to tackle them.

There are a few basic issues that we need to examine in order to provide some insight into what students should expect when they study at university, namely:

- Campus.
- Learning environment.
- Lecture theatres and lectures.
- Tutorial facilities and tutorials.
- Laboratory facilities and laboratory work.
- Industry based learning/projects/work experience.
- Support facilities/services.
- Amenities.
- Social activities.

The most obvious physical change that takes place in life as an undergraduate is the scale of a university campus compared to that of a secondary school. Not only is a university campus significantly larger but it is also, as a corollary, generally further away from students' homes because there are fewer universities in a given state

than there are secondary schools. Getting to a campus therefore becomes one of the first challenges in university life – getting around a campus becomes the second, particularly in larger universities.

In a secondary school, getting from one class to another may involve as little as moving a few metres – or sometimes not at all, when the new class comes to the student. In a university, it is relatively common to need to move from one building to another and, sometimes, from one campus to another, in order to go between lectures, tutorials and laboratories. In disciplines such as medicine, it may also be necessary to move between the university campus and a hospital based campus. After the initial confusion and novelty wear off, the tramping from lecture to lecture can become somewhat tiresome and annoying.

Most universities are logically laid out, with functionally similar buildings collocated in similar geographic locations. Unfortunately, however, the intrinsic difficulties with the size of a campus generally manifest themselves in the first year of undergraduate programs, because these are invariably composed of a broad range of introductory subjects – introduction to physics; introduction to chemistry; introduction to engineering, and so on. So, it is interesting to note that first year undergraduates generally need to walk more than most other university students and staff in order to arrive at their classes. This tends to exaggerate one of the fundamental, physical differences between secondary and tertiary education.

While simple geography and layout should be a trivial issue, it is interesting to note that many students cite this as a reason for transferring from one university to another (generally from larger to

smaller universities) in their early years, because size heightens a sense of alienation of the student from the environment. It adds to the sense that students don't belong to "a university" but, rather, move between a collection of fiefdoms, each of which has its own peculiar set of rules and regulations – the physics lectures and laboratories have one set of staff and rules; the chemistry lectures and laboratories have another, and so on.

Needless to say, it isn't just the scale of geography that can intimidate in the early days of university study but also the scale of the classes or lectures. Students move from a secondary school environment with classes in the order of 30 students, where the teachers know each student as an individual, to lectures with 400 students or more, where lecturers have little or no direct contact with students, and know them only as a student number when assessing examinations.

Compounding the alienation from the environment is the fact that first year undergraduates are invariably exposed to a broader program of learning, and hence a much broader variety of educational styles than they may have encountered in the latter years of secondary education. In large universities, the chemistry lecturers don't know the physics lecturers who don't know the maths lecturers, and so on. Unlike the secondary school environment, lecturers from different fields would rarely see one another. For this reason, the maths lecturers have one style of education; the business lecturers another, and each has a completely different set of expectations. It is often difficult to come to terms with all of these, because each style brings with it a different set of requirements and obligations on the part of the student – what is considered good for

one lecturer is considered bad for another. All these elements combine with the sheer scale of a large university campus to overwhelm and intimidate the newcomer.

Perhaps the most straightforward way of dealing with this is to understand that all university students have to deal with this very same problem and, moreover, it is not a modern phenomenon but one that has been an intrinsic challenge in university learning for a long time. There also needs to be some acceptance that one is not necessarily going to triumph in every subject in the first year of study, simply because there are too many differing requirements to provide a simple formula for success – there are too many formulae and there is limited time to master them all.

In terms of learning, one of the things that students notice when they commence university study is that the university learning environment is more competitive than that at secondary school – fundamentally because those who move into university study tend to be the more highly ranked secondary school students. The end result, which can add to the sense of intimidation, is that students arrive to find that they are not the smartest kid on the block, as they were in secondary school, and, in fact, there are seemingly many other intelligent, or more intelligent, students with which to compete. The first year of university study also tends to be one in which students compare their secondary school results in a quest for one-upmanship. As all students are trying to determine their place in the new environment it is not surprising that this leads some to pushing themselves harder in order to outshine their colleagues, or perhaps even leave them behind. Students who believe in teamwork or collegiality find this a very difficult phenomenon to deal with, and it

can be demoralising. It is, however, a phenomenon that subsides after the first year of study, and students generally find their own clusters of colleagues with whom they are comfortable.

Many students therefore sum up their first year of university life as moving from exciting and novel to intimidating, tiring and exasperating and, for the most part, it certainly is. However, one needs to remember that, beyond the intimidation; beyond the tiring walks from one lecture to another; and beyond the exasperation of differing (sometimes conflicting) requirements from different lecturers, something quite extraordinary is actually occurring. The university is throwing an entire series of life challenges at first year students – it is broadening their geographic horizons; challenging them to broaden their thinking; daring them to compete even harder than they did in secondary school education. Most of this may well have occurred unintentionally – it is unlikely that the university fathers decided to design universities to be this way, but there they are – and there is merit to the accidental learning potion that has been created. The environment is throwing out a challenge to students to grow – not just to tackle simple, one dimensional problems set in a closely controlled classroom but, rather, to cope with transport; with parking; with conflicting and unreasonable objectives; with unreasonable competition and competitors, and so on. And in the midst of this turmoil and challenge is the need to learn formally as well.

It is all too easy, and all too common, for students to simply attempt to succeed in a scholastic way in their first year of university study – that is, maximise their academic results for the year. It may indeed be possible to achieve such an outcome, but if this outcome

has to be achieved at the expense of human growth and development then perhaps one needs to assess what it is that one is attempting to achieve from tertiary education – is it a simple set of scholastic numbers that will be forgotten a few days after graduation, or a lifelong approach to learning and tackling challenges in a professional manner? For that is the opportunity that the chaos of the university environment and the first year of university study provides.

There are many students who tackle the chaos and challenges of their first year of study by becoming workaholics, assiduously rote learning everything and achieving high results. Then there are others who sit back and observe the environment and ask the profound question of “what am I trying to achieve here?”. It is those students that can develop a more mature approach to learning and life – they want to genuinely understand rather than simply memorise; they are prepared to accept lower grades with the wisdom that grades, although important, are not the end in themselves.

Although it is (unfortunately) generally treated as such, the collection of high academic grades is not intended to be a competition, where the person with the highest numbers wins. The end point is the learning; the understanding; the development of self-awareness; the recognition of strengths and weaknesses. Beyond that, students need to develop an understanding that they cannot succeed, in a broad sense, in either university study or later life, by existing and working in isolation – as John Donne profoundly observed:

“...No man is an island, entire of itself, every man is a piece of the continent, a part of the main, if a clod be washed away then Europe is the less...”

In other words, neither university study nor life are complete when undertaken in isolation. While it is possible to achieve high scholastic results as an individual, it is difficult to achieve human growth and development as an isolated individual – these latter attributes will have a greater impact on success in later life than will rote learned scholastic materials.

University study therefore provides a vehicle for students to form their own teams; to understand that such teams need to be formed from people with differing views, strengths and weaknesses, and to learn how to not only respect differences between team members but to embrace them for the extra value that they bring to the team. In other words, the gauntlet thrown down, in the challenges of the first year of university study, offers students the opportunity to create teams to tackle them, and to try and make the teams greater than just the sum of the parts. So, whether the challenges are as basic as getting to the university campus; or as complex as dealing with conflicting objectives laid down by different lecturers, a team approach can offer support and solutions, and keep morale from dropping when times are difficult.

Teams can also assist students in planning and moderating their workloads, or prevent students from slacking off at inappropriate times. In the first year of study, some students will inevitably slack off after the success of their ultimate year of secondary school study – this can lead to disastrous consequences.

Equally dire is the situation where students simply need to work too hard to achieve scholastic outcomes.

The person who achieves a string of first class honours for their subjects through an unduly harsh study workload is perhaps less likely to be successful in later life than one that is pragmatic enough to determine what is a reasonable workload to achieve a good understanding and reasonable outcomes – ultimately, the latter shows a greater self awareness of his/her capacity. Students who develop a team based approach to learning are far better placed to determine whether they are studying too little or too much than those who work in isolation – because team members have the luxury of relative scales.

Some people can naturally achieve outstanding scholastic results with limited work – those that can't need to develop a higher level of self awareness and understanding, and determine what their goals should be. Pushing oneself, and working hard to achieve one's goals, are fundamentally good attributes. In so doing, however, one also needs to consider whether one is attempting to achieve one's own goals or those of someone else. At university level, it is necessary to consider the possibility that taking on an unsustainably large workload to achieve scholastic goals set by parents, for example, is not a sign of growing maturity – it is a sign of avoiding the responsibility of becoming an adult in one's own right. Neither is it physically likely nor feasible that someone who needs to work 100 hours per week in their study to achieve first class honours will ever magically become as smart or successful as someone who can achieve a first class honours with only 40 hours per week of study.

So, all first year students must ask themselves what exactly it is that they are trying to achieve.

The university learning environment is complex and students need to understand that it is generally beyond the reach of their parents to provide the necessary guidance and advice. So too, given the maturity of the students, as adults, does it become unreasonable for parents to place undue expectations on their children. The first year of university study is where the learning environment dictates that the students have to determine and set their own expectations. It is a year in which the students tend to outgrow the educational support structure that their parents can provide.

The first encounter that students have with the university learning environment is its physical hub – the lecture theatre and the lecture. Although slate and chalk have been replaced with data projectors and notebook computers, little else appears to have changed in lecture theatres for centuries. The first few lectures that students encounter at university can therefore be rather interesting experiences for two reasons:

- (i) Some lecturers conduct themselves in the exact same way as secondary school teachers – providing detailed curricula; writing notes and equations for students to copy down and memorise.
- (ii) Some lecturers have a more mature approach and simply walk in and start talking about a subject, with the expectation that students will go away and do their own research, find their own books and learn from those.

Needless to say, the majority of students arriving from secondary school study prefer approach (i) because it is structured and requires minimal transition from secondary school study (teaching) to independent learning. Many lecturers (perhaps even a majority) also prefer approach (i) because it requires the least understanding of the subject matter on their part, and enables them to cut and paste notes from books and the Internet to create subjects. Approach (ii) can really only work when lecturers have an enormous grasp of the material that they are lecturing in, and when they have maturity and confidence in their own abilities – it also requires that students have more maturity in their own learning approach.

Many first year students naively believe that all lecturers intimately understand the subjects that they are teaching. While this is often the case, it is also quite common in the modern university world for lecturers to have a very poor understanding of the subjects in which they lecture. Fundamentally, this is because universities tend to employ academic staff based upon their ability to perform research in particular areas, rather than upon their ability to actually lecture. The end result is that academics are often assigned to fill blanks in lecturing schedules, whether or not they have any detailed understanding of the subject matter. This is fundamentally different to what should happen in a well run secondary school. To this end, students need to understand that they are ultimately there to learn despite many of the lecturers, rather than because of them. That is the price one pays for becoming an adult – a realisation that the world is not always a well designed place.

In order to compensate for the inadequacies of the lecture environment, particularly when lectures can be conducted with 400

to 500 students, and without opportunities for asking questions, universities generally establish supporting tutorials. The nature of tutorials varies not only from university to university but also from subject to subject. There is no universal model that is applied for tutorials except to the extent that they are intended to support students in their learning process and in cognisance of the inadequacies of large scale lectures.

There are two characteristics that students should note about tutorials. The first is that they provide an opportunity for a more intimate learning environment, with smaller purpose-designed rooms which have only 20 to 50 students present, and the opportunity for students to ask questions or clarify material raised in lectures. The second characteristic of tutorials is that they are generally not operated by lecturers but, rather, by tutors who are either people whose full time job it is to provide support, or else part time tutors who are primarily postgraduate research students or postdoctoral researchers.

The use of postgraduate research students and postdoctoral researchers as tutors has both advantages and disadvantages. Many lecturers repeat the same lectures over and over, for year after year, and so tend to lose empathy with students who are encountering the material for the first time. Because the lecturers become increasingly familiar with the material, they tend to assume that new students will also be increasingly familiar with the material when in fact this is not the case. Postgraduate students and postdoctoral researchers, on the other hand, are people who have had to battle with learning the same material only a few years earlier and therefore have significantly more empathy with the difficulties of the students, and

also the common misconceptions that students may have. Postgraduate research students and postdoctoral researchers ultimately only take a particular subject tutorial for two or three years, and therefore do not exhibit the same over-familiarity with the material that is common to some lecturers.

The disadvantage of having postgraduate students and postdoctoral researchers as tutors is that they may simply view their tutorial work as a part-time background activity used to generate additional income while undertaking research. If this is the case (and it often is) then it will become apparent to the undergraduate students that there is insufficient effort put into the tutorials by the tutors.

Some universities employ full-time tutors whose entire role it is to find ways and means of easing the learning process of undergraduate students. If these tutors perform their job well then undergraduate students can get significant benefit from the tutorial process.

In general, tutors tend to be much closer in age to the undergraduate students than the lecturers. For this reason, there are opportunities for bonding between students and tutors, particularly in cases where students have not yet been able to form their own study groups or bond with their peers. In universities this has provided a natural mentoring (or big brother / big sister) approach to learning that helps students to better integrate into the university environment.

Another integral part of the learning process that supplements the lectures is laboratory work. This is obviously more directly

relevant to students in areas such as engineering, science, medicine, architecture, and so on, but can also exist in various forms in the arts, law, etc. Students tend to distinguish between laboratories and lectures as two separate (and disconnected) entities – largely this occurs because laboratories tend to be run by different staff; have their own separate marking schemes, and sometimes (for logistic reasons) are not in time phase with relevant background material covered in lectures. In fact, in order to maximise the learning associated with lectures, laboratory sessions need to be considered as important supportive elements of the learning process – in some cases they are actually far more important than the lectures themselves.

A common misconception that students have about laboratories is that they are provided purely so that students can have some practical observation of phenomena described in lectures – this is an important part of the laboratory process but it is not the only part. Fundamentally, the purpose of laboratories is for students to learn to decipher fact from fiction; theory from practice and, ultimately, to learn to tell the truth. Telling the truth in areas such as science, engineering and medicine is far more difficult than it sounds. People naturally want simplistic alignments between theory and practice but the problem with this is that theories tend to be a very simplified version of reality.

Sadly, many students miss the opportunity accorded by laboratory work to develop the discipline of telling the truth – rather, they zealously endeavour to fudge experimental results so that they can get simplistic agreements between theory and practice and, hopefully, good grades. In so doing, such students miss an

important opportunity for personal growth and maturity – they fail to understand that part of becoming an adult and a professional is to differentiate between fact and fiction and to understand the limitations of one’s own work.

In the early years of laboratory work, those that design laboratory sessions have done much of the hard work for the students, and have designed experiments that have factored out many of the dimensions of an experiment that might complicate relationships. So, in the early years of university laboratory work it is common to get a good correlation between theory and practice. The objective of early year laboratory work is then for students to learn to understand the limitations of their experiments – inaccuracies in instruments; noise; inadequacies of experimental apparatus, and so on. Sometimes the objective of the laboratory work can be as basic as getting students to understand which instruments can be used for particular applications and which can’t.

As students move upward through their university degree program, a well designed laboratory program will seek to remove the rigid frameworks from experiments that lead to simple relationships between theory and practice. So, as students become more adept at conducting experiments, the experiments become much more difficult to perform because the “training wheels” have been removed. Experiments have multiple dimensions to them and students need to learn how to provide their own constraints in order to make meaningful practical measurements and see how they relate to theory.

In the final year or years of undergraduate study, a well designed laboratory structure will ultimately leave students to their

own devices – that is, force them to design their own experiments; determine what sort of instruments to use; impose their own constraints, and then to see how well theory and practice match – if at all. A final year university undergraduate who has genuinely matured as a result of their laboratory work should be unconcerned when theory and practice don't match – except to the extent that they have been presented with the challenge of determining why they don't match. A student who has not matured as a result of the laboratory process will invariably attempt to fudge results to ensure that correlations occur, even when the lack of correlation is the genuine outcome of the experimentation process. Again, it comes down to students learning to tell the truth, rather than delivering falsified results that might pull the wool over the eyes of a supervisor or laboratory demonstrator.

Students need to learn to embrace laboratory work rather than treat it as an onerous burden or ordeal to be passed through as expediently as possible. Laboratory work is one of the fundamental growth and maturation tools that universities employ to help transform students into adults and professionals.

Another form of laboratory work is industry based learning or industry placement as an undergraduate. In some universities and courses this is a formal requirement of the undergraduate program, and is associated with marks that contribute to the final degree. In other cases it is treated as an informal component of the learning process where a student is left to his/her own devices.

Like laboratory work, industry based learning is a tool for helping students to mature and to grow – not necessarily just in their chosen professional field, but as human beings. Industry work

provides opportunities for students to work with practicing professionals; to mix in environments that are composed of people outside one's own profession – for example, administrators, accountants, and so on. It provides an overview of the practical realities of a profession and shows that, regardless of what is learnt at university, in a practical professional role, people have to be broader than the narrowband learning of university suggests.

Working in an industry (be it a hospital, legal firm, factory, software house, or whatever) brings with it a number of challenges and dangers for students. Appendix A of this book provides a detailed account of the various issues that students will encounter in industry, and the mechanisms that are available for students to tackle them and ensure their own physical and emotional wellbeing.

Undergraduate students can be placed into industry for a range of different reasons besides mere work experience. In some cases, final year projects or postgraduate research projects are undertaken on an industry premises by a student, simply because the university does not have particular facilities or support structures. Such projects provide significant opportunities for students as well as challenges, and students should familiarise themselves with these before undertaking such projects (see Appendix A).

Many undergraduate students in the modern university environment are also part-time employees in industry simply through a requirement to earn funds to support themselves through their study. With jobs as varied as stacking supermarket shelves through to working as trainee engineers in automotive companies, it is difficult to pre-empt the sort of challenges that students will face, or the burden such work will place on their study. Suffice to say that

universities design full-time courses to be full-time courses, and that this means a commitment of not less than 40-60 hours per week during semester to achieve reasonable results. This is not an ambit figure nor a wish-list item from academics but, rather the reality of a modern undergraduate program. With this in mind, students need to determine what outside work is feasible in the remaining time constraints that they have. The alternative to constraining outside work commitments is to seek to undertake the learning program on a part time basis rather than a full time basis. The penalties for this are significant – delays in achieving professional status and professional income; distractions from the core objective of learning, and so on.

The difficulties that modern students face, exacerbated by an increasingly complex and competitive environment; work pressures and so on, cannot be tackled by individuals in isolation. For this reason, universities provide a range of support structures to assist students if they get into difficulties or get into a rut. Albert Einstein once defined insanity as the process of *“...doing the same thing over and over again and expecting a different result”*. When students get to the stage where they are experiencing hardship, they would do well to keep in mind Einstein’s observation, and recognise that just continuing with the same pattern is not going to lead to a solution. It is at this point that students should consider making use of the various university support services.

The most basic support service that a university provides is the student body itself – in many cases the best form of support that a student will ever get will be from his/her peers and colleagues rather than any other formal source. However, when this is insufficient, it is important for students to recognise that getting out

of a repetitive behaviour or problem pattern may only be resolved by more formal supporting mechanisms. To begin with, these can be as basic as tutors or laboratory demonstrators who can provide mentoring or coaching. Universities also have in place a range of different mechanisms to deal with unfair treatment in terms of study, particularly pertaining to areas such as discrimination, harassment, and so on. In addition, there are mechanisms in place to deal with the academic fairness of the assessments that are provided or of the workloads associated with individual subjects. Normally universities have these procedures and mechanisms very well documented, and generally on-line so that they are readily accessible (typically under headings such as “procedures for assessments and appeals”). Students should be confident in using these mechanisms to ensure that they are given every opportunity to perform to the best of their abilities.

Typically, mechanisms relating to academic issues can be addressed to the subject convenor in the first instance; the undergraduate course coordinator in the second instance (e.g., first year coordinator; second year coordinator, etc.); the departmental head in the third instance, and the faculty deputy dean or dean in the fourth instance – if all these fail, then the issue can be brought to the attention of a deputy vice chancellor (academic) or to the vice chancellor.

A common complaint relates to the quality of lecturing by individual academics. If students are genuinely concerned about this then they should approach the departmental head or faculty dean to discuss the matter. Needless to say, it is probably of little merit as an argument if one student is dissatisfied with a lecturer and all other

students are content, so complaints about the quality of lecturers or the difficulty of subjects should generally only be brought up after consultation with student peers – if there is a general consensus that a subject is too difficult; the lecturing quality poor, or the assessments unduly harsh or unfair, then there is merit in discussing the matter with senior staff – as a group of concerned students.

Most universities operate subject surveys to determine student perceptions of various subjects – however, these generally only take place when it is too late – after the subject has been completed. If there are genuine concerns about a subject then students should take action as early as possible.

As student problems become more complex or personal (and outside the scope of the study itself), there are a range of counselling; chaplaincy and psychological support structures that are routinely available within the university system. Students should make use of these before problems get out of hand. In many instances a university counsellor may be able to suggest other remedies available within the university system, and may be able to approach others on a student's behalf. Students should be aware that they are paying for these services in their fees and that they are there to be used, so there is no need for shyness in approaching staff.

Student support services are only one part of the total set of amenities and social activities that are available to undergraduates when they enter university. The objective of all of these is to broaden the horizons of students and to give them something more than just a scholastic experience. Most universities provide a range of amenities that facilitate sports and recreation, social and political groups, and so on. These provide an excellent opportunity for students to mix

with others outside their own narrowband undergraduate studies, and to acquire a greater understanding of differing opinions and study perspectives.

Some of the groupings that are formed within universities also provide students with the opportunity to change the nature of the university itself so that future students can benefit – this can occur through lobbying of the university council and chancellery, or through various political affiliations. Although many of the university groupings tend to foster political views which can be rather extreme relative to mainstream society, there is significant merit in students forming their own new groups which have an agenda of improving issues which may be more relevant to their own studies and life at the university. In general, universities provide small amounts of money to facilitate the establishment of new groups. Students who actively initiate, and participate in, such groups can achieve far more than just changing the university for the better. They can also develop public speaking and debating skills; writing skills, and lobbying skills that have enormous applications in later life.

As with all extra-curricula activities, students need to ensure that they find a balance between these and their core scholastic activities so that the extra-curricula activities support and enhance the overall learning experience rather than detract from it.

Chapter 6 Summary:

- (i) *The university learning experience is broader than just the scholastic program which is being undertaken – it should involve the growth, maturation and development of the individual.*
- (ii) *The intentional or unintentional consequences of university life – both physical and environmental – act to facilitate growth by presenting individuals with a far greater range of challenges than they encounter in secondary school.*
- (iii) *A key way of dealing with the challenges thrown up by university life is to learn to form and work in groups or teams, and to develop the maturity to embrace and use the different attributes of team members.*
- (iv) *The development of self-awareness, and an understanding of individual strengths, weaknesses, potentials and limitations is one of the most important attributes of university learning.*
- (v) *Universities have a range of support and extra-curricula facilities and services to assist individuals and to create an environment for personal development. These should be utilised and considered as part of the overall learning process.*

