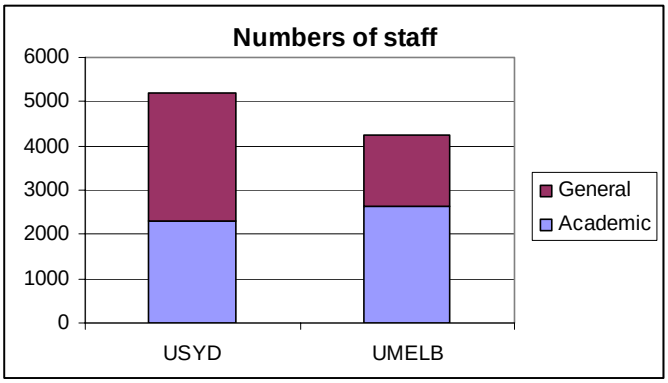
Section 3: General overview

Both the University of Melbourne and University of Sydney were established in the 1850s and have grown to accommodate approximately 40,000 students each. Both Universities are considered part of the 'group of eight' of Australia's top tertiary education institutions (data provided in Appendix 3A).



Staffing at the University of Sydney appears greater overall but the ratio of academic staff to general staff is 1:1.26 at Sydney and 1:0.62 at Melbourne.

There is a large variety of degree programs on offer at both universities with a minimum of 300 credit points required for an 'ordinary' degree at Melbourne and 144 credit points required at Sydney. In both cases this translates to a three-year full time degree program, a student completing 100 credit points/year at Melbourne or 48 credit points/year at Sydney. Both universities are research intensive and offer postgraduate qualification by research.

Faculty

At both universities academic disciplines are clustered into Faculties with an additional grouping of Faculties into Colleges occurring at the University of Sydney. Not surprisingly the Faculty of Science at both institutions encompasses core disciplines such as botany, zoology, genetics, chemistry, physics, mathematics, earth sciences and information technologies. The differences between the two Faculties of Science centre on the inclusion of optometry and vision sciences at the University of Melbourne and psychology at the University of Sydney.

Both Faculties of Science offer a generalist BSc degree program and a variety of specialist degree programs (4 at UMelb and 14 at USyd) and combined degree programs (9 at UMelb and 6 at USyd). In addition the University of Sydney offers four discipline degree programs (Computer Science and Technology, Information Technology, Medical Science, and Psychology) and Melbourne offers two discipline degree programs (Biomedical Science and Information Systems). Entry requirements include mathematics at both institutions, English at Melbourne and an additional requirement of two science subjects at the University of Melbourne. The entry score (ENTER in Victoria and UAI in New South Wales) appears similar for the BSc degree program and has steadily increased over the past few years.

Supporting new students

There are transition programs at University, Faculty and School level at both universities reflecting the importance that is now attached to helping students in their first few weeks in tertiary education (see Appendix 3B). In addition bridging courses are held in biology and chemistry at the University of Sydney and in chemistry at the University of Melbourne and offered to students who enter university without high school level biology or chemistry.

Supporting talented students

The Faculty of Science at the University of Sydney invites students each year to join the Dean's Talented Student Program (TSP). The TSP is tailored to meet individual needs and is restricted to the very top students. Students with outstanding results in the HSC are able to negotiate a special program of study with one of the discipline areas in the Faculty. In some cases, students may be able to bypass a first year subject and enroll directly in a second year subject.

Whilst still at school, students in Melbourne may take the Melbourne University Program for High Achieving Students known as MUPHAS. This enables students to take a first year university subject while still at school.

Biology and Chemistry Teaching

There are large numbers of students studying biology and chemistry at first year level with fewer at second and third year level. This reflects the core nature of these subjects to many degree programs. While at the University of Melbourne almost all the teaching is conducted for students within the Faculty of Science (the exceptions being to students in the Institute of Land and Food Resources, first year Optometry and first year Veterinary Science), at the University of Sydney service teaching accounts for a significant proportion of the teaching. This includes teaching to students in the Faculties of Pharmacy, Veterinary Science, Agriculture, Nursing and Health Sciences. Overall there are larger numbers of first year students at the University of Sydney which reflects the number of degree programs on offer.

Staffing

The main difference between the way chemistry and biology is taught to first year students at the two Universities centres around staffing arrangements. First year biology at the University of Melbourne has the flexibility of providing associate lecturer - level A type appointments that are part time (0.4) but conducted as almost full time during semester (~ 1.0) and minimal (~0.2) out of semester. This appears to provide great flexibility to the staff involved and dedicated and skilled teachers to help the students, which in turn reduces the need for large numbers of casual staff to teach in the laboratory programs.