Courses at University

Basic undergraduate degree - “Bachelor’s degree”, e.g., Bachelor of Science (BSc), Bachelor of Arts (BA), B.Eng., etc.

Various degrees offered by different faculties. Faculties are groupings of academic Departments or Schools, normally with common interests.

At Adelaide, there are 5 faculties: Professions, Science, Health Sciences, Humanities & Social Sciences, & Engineering, Computer and Mathematical Sciences.

Bachelor’s degrees are normally 3 years of study, (Engineering is 4 years).

To complete degree, need total of 72 units. (96 for Engineering). Normally take 24 units per year; 12 units per semester.

Each subject is usually 3 units, so standard load is 4 subjects per semester.

Note: In addition to reaching the 72 units, there are other requirements (“the degree rules”) such as on the number of units obtained at each level.

Note: Sometimes a degree is called a course, and sometimes it is called a program. Also, sometimes a subject is called a course. And sometimes units are called points. It can all be quite confusing.

Each subject is usually 3 units, so standard load is 4 subjects per semester.

There are usually 12 weeks per semester.

In first year, a subject will usually involve 4 hours of lectures and 1 hour of tutorials each week; some subjects have laboratory sessions.

In second year, subjects usually involve 3 hours of lectures per week and a tutorial or lab each week or fortnight.

In third year, subjects usually involve 5 hours of lectures and 1 tutorial per fortnight.

Depending on which degree, the choice of subjects can be very broad or very restrictive.

In Mathematics, there are 3 degrees: Bachelor of Mathematical & Computer Sciences (BMCompSc), Bachelor of Mathematical Sciences (BMaSc) and the Bachelor of Mathematical Sciences (Advanced) BMaSc(Adv). First is very flexible; second is fairly prescriptive; last is a bit more prescriptive still.

The BMaSc(Adv) is a very new degree (first offered this year).

It should attract students with strong mathematical abilities and interests, and, we hope, will be very attractive to potential employers.

It should also be an excellent launching pad for postgraduate studies in mathematical sciences.

There are also strong connections to degrees offered by other Schools and Faculties. E.g., B.Fin., B.Comp.Sci., B.Teaching.

Mathematics also provides foundational studies for many other degrees; E.g., BSc, B.Econ., B.Eng.

Within Mathematics, there are 3 broad areas of specialisation (“disciplines”): Pure Maths, Applied Maths, and Statistics.

Pure Maths is concerned mainly with theory; Applied Maths with the application of mathematics to “real-life” problems; Statistics is concerned with modelling and analysing of data and their interpretations.

Choice of subjects is determined by many factors: personal preference; advice from others; career goals; etc. Making good choices is very important.

For those who do not have specific career goals in mind, it is usual to start out with a broad choice of subjects and subsequently become more specialised.

E.g. (NPB, BSc ANU, previous millenium):

- First Year: Physics, Chemistry, Pure Maths, Applied Maths.
- Second Year: Physics, Theoretical Physics, Pure Maths.
- Third Year: Theoretical Physics, Pure Maths.
- (Fourth Year - Honours): Pure Maths.
Honours Degrees:

Most degrees allow students to do a fourth year of specialised study called Honours. Normally students work in just one area of specialisation, and the work involves both lectures and project work (thesis/dissertation): a training in undertaking research.

Undertaking such research training is essential to be able to go on to higher degrees, (PhD, DSc, etc). Undertaking such research training is essential to be able to go on to higher degrees, (PhD, DSc, etc).

(There are other pathways to higher degrees such as Masters degrees, and these have much in common with Honours. The key is the training in undertaking research.

Students learn about the various possibilities as they progress through their undergraduate degrees.)

Another variation on basic Bachelor’s degree: double degrees.

A double degree involves undertaking 2 undergraduate degrees essentially at the same time.

In the first two years, subjects taken normally count towards both degrees. In the third year, studies are normally focussed on one area to complete one of the degrees. In the fourth year, the subjects required to complete the second degree are taken.

(A double degree with Engineering will normally take 5 years.)

Double degrees involving a vocational degree (e.g., Engineering, Finance, Teaching) together with Mathematics are very popular. They are very attractive to prospective employers.

There is considerable flexibility in the process:

- Students can sign up for a double degree during (or after) their first year at university;
- Students can drop one of the two parts of their degree;
- It is possible to switch between degrees if the appropriate rules are satisfied.

Example: B.Teaching/B.Maths&CS double degree. (This example would be for a person aiming to teach upper level mathematics in high school, and who did Year 12 French and wants to continue with it.)

Example: B.Teaching/B.MaCompSc double degree.

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Note: The main Mathematics subjects in first year are Maths 1M, Maths 1A, Maths 1B and Statistical Analysis & Modelling I.

Entry into Maths 1A requires Maths Studies and Specialist Maths in high school.

Students with just Maths Studies (or equivalent) in high school enrol in Maths 1M in their first semester, then continue on with Maths 1A and subsequently 1B.

One of Maths 1M or Maths 1A is required to take Statistical Analysis & Modelling.

Maths 1B is offered over the summer for students wanting to move ahead more rapidly.
Getting more information

http://www.adelaide.edu.au

http://www.adelaide.edu.au/degree-finder/
