

SCIENCE CAREER SNAPSHOT

Science is a broad term that takes in a huge variety of fields. This amount of opportunity can seem overwhelming without taking a considered approach to your career exploration. By looking at the possibilities in a structured way throughout your studies, you can work through which areas might suit you best and what steps you'd need to take to work in that field.

Explore your Options

At JCU, the following Science majors are available*:

- Aquaculture Science and Technology
- Chemistry
- Data Science
- Earth Science
- Marine Biology
- Mathematics
- Molecular and Cell Biology
- Physics, and
- Zoology and Ecology.

Careers in science often draw from more than one discipline, and it is possible to do combinations of majors, minors and interdisciplinary minors to suit your interests and expand your skill set.

But what jobs do these majors lead to? It's important to know what you're heading towards, here are a few ways to investigate.

Use LinkedIn

LinkedIn is an incredible resource for looking at careers. For careers like science where options are broad, it can help you understand job titles, employers, industries and skills in demand.

Investigate the [JCU Alumni tool](#) for an overview of where alumni are working, and drill down into their LinkedIn profiles to identify career pathways and current and past employers of JCU science graduates.

Follow established scientists/professionals locally or other places. This is a great way to benefit from their posts without being connected - a good option if you haven't met in real life, or if you aren't yet confident enough to send a connection request.

Follow employers of choice, interest groups and industry bodies to ensure you don't miss their updates, e.g. CSIRO; BoM; Dept of Innovation, Industry and Science; ANSTO. Take note of the **hashtags** they use on their posts and follow those too. Your understanding of that field will keep expanding as each new post feeds through.

Use your Networks

Keep in touch with supervisors from volunteering, placements or work experience via LinkedIn or directly to ensure you're informed of job openings when they occur, or even before they are advertised.

Investigate Current Vacancies

Searching job vacancies is an excellent way to see what opportunities exist. Looking for **graduate or entry level positions** will show you what you could do straight after graduation and what skills and experience you should develop while you're studying. Looking at what jobs **experienced professionals** can do will help you expand your longer term goals.

A range of websites are listed below in "Job Opportunities" and vacancies are often posted on employer websites, along with their LinkedIn, Facebook, and Twitter feeds.

Transferrable Skills

Transferrable skills fall into broad categories like communication, problem solving, teamwork, managing and organising, and leadership. In Science, though, there are a number of other transferable aspects that employers value: the scientific method – forming hypotheses and testing them; looking at hard evidence;

identifying non-apparent connections; developing and following procedures; novel problem solving; lab skills and use of analytical machinery, etc.

Workplaces are increasingly driven by data, evidence based decision making, creativity, innovation and technology, and as a result, more employers are recognising the value of the transferrable skills that science graduates have.

Take every opportunity to develop these skills in preparation for graduate employment.

"An education in STEM also fosters a range of generic and quantitative skills and ways of thinking that enable individuals to see and grasp opportunities. These capabilities—including deep knowledge of a subject, creativity, problem solving, critical thinking and communication skills—are relevant to an increasingly wide range of occupations. They will be part of the foundation of adaptive and nimble workplaces of the future."

Source: [STEM: Australia's Future](#), page 7

Specialist or Generalist?

Science careers give the opportunity for specialisation but also to have a wide range of skills that could take you into many roles with greater variety.

Graduates may choose to undertake postgraduate study in order to specialise in a particular area of interest within their discipline or pursue further studies in an area outside of science, such as education, law, business, journalism and finance.

Doing honours is also another consideration, particularly if you have an interest in research. An honours project can give the opportunity to draw all your skills and knowledge together on one project, as you would in the workforce.

For more information, see [pages 4-5 of the STEM Guide](#) by GradAustralia, and JCU Careers' [Career Snapshots](#) for specific science fields.

Boost your employability



BOOST YOUR PROSPECTS



Explore your options, clarify your career goals



Build your networks



Gain course relevant experience



Fine tune your job application skills



Show initiative, engage in extra-curricular activities and stand out

[Check JCU Job Ready](#)

Employers want to know you can offer more than your educational qualifications. Be proactive, get involved and stand out from the crowd.

- Attend relevant professional development opportunities. Keep a record of attendance
- Compete in [student challenges and competitions](#)
- Volunteer to assist academics or PhD students' research
- Become involved in community activities, organisations and events. Employers value community engagement work
- Become a Student Mentor at JCU
- Volunteer at the annual JCU Careers Fair, network with employers.

Gaining **career relevant experience** before you graduate can improve your job prospects and help you stand out against other applicants. Employers are able to **see you perform** and determine your potential as a future employee and **you gain valuable insight** into the type of job/field of employment you might enjoy.

Employers often **require you to provide evidence** that you have

applied [your skills and knowledge in a work context](#).

Volunteer work will give you practical experience, grow your networks and develop referees.

Think about areas of science that interest you most and seek out volunteer opportunities in that area. Alternatively, you may volunteer in an area not directly related to science based on your interests. This is still great experience and develops your transferrable skills. Volunteer opportunities are listed on:

- [Seek Volunteer](#)
- [FNQ Volunteers](#)
- [Volunteering North Queensland](#)
- [Townsville City Council Community Directory](#)
- [Cairns City Council Community Directory](#)

Student competitions provide another source of skills development and application and there are many relevant to science, such as Go Green in the City, EY Data Science Challenge, PEMA Student Challenge, Brand Storm Loreal, Famelab, KPMG ICC, DrivenData, Kaggle, Nespresso Sustainability, World Solar Challenge, Climate Launchpad, etc. For a full list, see [our webpage](#).

Vacation and Internship Programs are generally offered by employers to students in the middle/final years of their degree. If successful, these programs sometimes lead to graduate employment with the employer.

Professional Associations

Student membership with a Professional Association is an ideal way to gain valuable insight into your future profession, demonstrate interest and meet people in your field who can support you in developing your career.

Membership benefits include access to industry news and trends, professional development materials, advertised jobs, conferences and other networking events.

A simple google search of "[topic] professional association Australia" will show what organisations might be of interest.

Some examples:

- [Royal Australian Chemical Institute](#)

- [Australian Institute of Physics](#)
- [Statistical Society of Australia](#)
- [Soil Science Australia](#)
- [Inst of Analytics Prof of Australia](#)
- [Professional Scientists Australia](#)
- [Australian Mathematical Society](#)

Job Opportunities

Online Job Boards

- [Seek](#)
- [Ethical Jobs Environment and Sustainability Jobs](#)
- [Careers at CSIRO](#)
- [JCU CareerHub](#)
- [Australian Job Search](#)
- [Australian Public Service recruitment](#)
- [Queensland Government Jobs](#)
- [THEUnijobs](#)

Some industries have specific job boards which can be found by a quick internet search.

Graduate Recruitment Directories

Directories provide information on graduate jobs, graduate programs, internships and vacation programs

- [GradAustralia](#)
- [GradConnection](#)
- [Seek Graduate](#)
- [Queensland Government Graduate Portal](#)
- [APS jobs Graduate Programs](#)

Graduate programs are structured professional development positions where successful applicants are offered on the job training and mentoring within the organisation.

These programs generally **recruit students throughout their final year of study** for commencement in the following year. Applications open as early as March.

Tap into online forums eg [Glassdoor](#) and [Whirlpool Forum](#) to view discussions on employers and recruitment experiences.

More information

- [The STEM Guide](#)
- [Careers with STEM](#)
- [AMSI Maths Adds](#)
- [Career Snapshots](#) by JCU Careers
- [Australia's Chief Scientist](#)

* Correct at time of publishing