



# Into the blue: advice for postgraduate marine science students

Australia's Blue Economy presents many challenges and opportunities, and a diverse range of skills will be needed by the next generation of marine scientists. Based on feedback from employers, universities and graduates, the National Marine Science Committee has the following advice.

## Keep your options open

- A career in the Blue Economy requires more than a first degree in marine biology and a passion for fishing or diving.
- Regardless of your undergraduate background, postgraduate training is likely to make you more competitive for many roles. It's important to broaden your knowledge in at least two of the knowledge areas prioritised by employers.

## Choose the right postgraduate degree

- While some employers prefer Masters graduates for generalist and technician-type roles, PhD graduates are valued for their critical thinking, communication, and problem solving skills, as well as their independence and professional networks.
- A PhD adds credibility to some positions and is essential to an academic or research career.
- Employers want candidates that have the adaptability and flexibility to work across disciplines on complex

projects, so be sure to consider postgraduate programs that offer advanced coursework across a range of disciplines and programs that can equip you with high-level quantitative skills.

- Postgraduate programs have specific prerequisites so it is a good idea to check out the websites of a range of universities to find a degree that is a good match for you.

## Transferable skills and personal attributes

- Throughout your career, you'll need to become confident in networking, teamwork, project management and leadership.
- Be proactive! Identify the skills and personal qualities you're going to need to work on.
- For starters, you'll need skills in problem solving, critical and business-oriented thinking, time management, oral and written communication.
- Personal qualities such as honesty, initiative, dependability, positivity and adaptability are also very important.

## Areas prioritised by employers

- environmental science and management
- marine biology
- mathematics
- statistics and modelling
- marine and microbial ecology
- cross-disciplinary studies
- marine engineering
- oceanography
- fisheries
- computer science
- social science

## Increasingly relevant

- artificial intelligence and machine learning
- genetics
- business
- social sciences
- law

## Working with industry

- Where to start? You can build up your links with industry via an industry engagement scholarship, industry-embedded PhD, or industry internship or volunteer work placement in Australia or overseas. Start the conversation with your postgraduate course co-ordinator or supervisor.



- Volunteering is a great way to develop teamwork and interpersonal skills and get contacts.
- You can also practice your communication skills by presenting research findings to the public via social media, and pitching to news websites.
- Mentoring matters. Find an industry mentor, and if you are doing a research degree choose a supervisor who is familiar with both academic and non-academic cultures.

### Career development

- Network, network, network! Join a professional association such as the Australian Marine Sciences Association. Head to external conferences and workshops, and create a LinkedIn profile if you haven't already.

- Seek out career workshops and other training opportunities to glean insights into the future of work in marine science, the job market and future employer priorities.
- Employers seeking high-level research skills may not always list a PhD as a prerequisite in job advertisements – don't exclude these positions from your job search. Ready to apply for your dream job? Consult the careers service at your university.
- When writing your application, try to understand how the organisation values disciplinary knowledge, transferable skills, personal attributes and life experience. Spending time on their website is a good start.
- Before your hit 'send' on your application, try and reflect these organisational values in your application with examples from your studies, work

experience and hobbies.

- Remember to communicate what you are capable of, as well as what you have been trained to do, with clarity and conviction.

### Read the report

The full report *Improving Australia's Marine Science Postgraduate Training System to Meet the Needs of the 'Blue Economy'*, is available on our website.

### Contact us

National Marine Science Committee  
[Marinescience.net.au](http://Marinescience.net.au)

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