Molecular Biology is an exciting and changing field where as a student you are required to develop the necessary practical and technical skills essential to develop a sound understanding of the interactions between various systems of the cell. This includes the process of DNA, RNA and protein synthesis and the concepts of genetics, as well as how these interactions are regulated. It is common for those studying this field to combine their study with a second major such as Biomedical Science, Forensic Biology, Conservation Biology, Agriculture or similar STEM disciplines.

According to the Australian Society for Biochemistry and Molecular Biology the “field is progressing at a breathtaking rate” and has important applications in the fields of medicine, agriculture and industry. Australia’s STEM Workforce Report shows that the top two industries that employed Biological Science graduates were Education and Training and Professional Scientific and Technical Services. The majority of graduates in the Biological Sciences field work as Professionals and Managers in a variety of roles that include: Design, Engineering, Science and Transport Professionals; Education Professionals and Business, Human Resource and Marketing Professionals.

Careers and Employment Centre

Careers in Molecular Biology

Engage in your career before you graduate

When considering what you can do with your degree, the most important actions to take are to not only do well academically, but ensure you enhance your generic employability skills, identify your research strengths and expand your networks. Becoming involved in what is going on in the world of Molecular Biology, through undertaking additional curricular and co-curricular activities will demonstrate your commitment to the scientific field and can make you more competitive.

Opportunities may include:
• Being an active contributor to your student group (Molecular and Biomedical Students) and professional association (Australian Society for Biochemistry and Molecular Biology).
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Careers in Molecular Biology

Molecular Biology graduates can work in laboratories, out in the field, in research institutes, teaching and even in science communication, such as journalism and promoting science from industry associations and educational institutions. Examples of top 5 industries where Molecular Biology students are employed include:

- Research Centres and Laboratories – Professional, Scientific and Technical Services
- Education and Training
- Public Administration and Safety
- Health Care and Social Assistance
- Manufacturing

Specific Job Roles include (which may require additional postgraduate research qualifications):

- Laboratory Assistant/Technical Assistant
- Research Assistant/Research Officer (with Honours)
- Research Fellow/Research Scientist/Principal Investigator (with Ph.D.)
- Patent and Trademarks Attorney
- Consultant Research Education Training Program
- Infection Control Co-ordinator
- Human Resource Manager
- Quality Assurance Analyst

Adaptability of your Molecular Biology degree and Alternative Careers:

Your ability to make clear and precise observations, communicate effectively, work accurately with attention to detail, analyse problems to develop practical solutions and work collaboratively with others, equips you for a range of alternative science based careers. Graduate employability is further enhanced if you compliment your degree with a second major/minor and/or undertake additional postgraduate study.

The following list of alternative careers (requiring complimentary or further study/skill sets) have been pursued by graduates with a Molecular Biology undergraduate degree:

- Human fertility specialist (with postgraduate qualification in clinical embryology)
- Medical Writer/Journalist (with Arts/Journalism major/Minor)
- Patent Examiner/Attorney (with Patent Law qualification)
- Recruitment Consultant (Sciences) (with Human Resources qualification)
- Research Grants Co-ordinator
- Safety and Quality Assurance Officer (with further training in OHS)
- Secondary School Teacher (Science) – with teaching qualification
- Sales Representative – Pharmaceutical
- Executive - Special Technical Projects

Molecular Biology Science Graduates have also been successful in securing multi-discipline Graduate Program roles. Graduate programs are structured professional development programs specifically designed for new graduates. Final year students apply for these positions from March for the following year. Most often positions are secured with Federal and State Government Departments. However large private corporations are also interested in the skill set that new Science graduates bring.

A Science degree with Molecular Biology can open many different career options, but you have to pave your own journey and make yours meaningful through active engagement in the world around you, through undertaking professional development programs, through purposeful industry-based networking initiatives and stepping up to opportunity. Molecular Biology is just the beginning.