With a worldwide shortage of bioinformaticians, the career opportunities for skilled bioinformatics graduates are extensive. At UQ, you can learn how bioinformatics is changing the way we interpret scientific data and make scientific discoveries.

Study bioinformatics and you will apply the power of computing and mathematics to molecular biology.

By taking core courses in bioinformatics, you will learn how to analyse genes, their molecular products and model the systems they make.

You will also compare genetic material between species, monitor the expression of molecules in different cells and discover abnormalities that cause disease.

Postgraduate bioinformatics students learn the latest techniques for exploiting the Next Generation Sequencing technologies that now dominate clinical and life science research.

You will be offered opportunities to solve real problems in genomics, proteomics, structural and systems biology, learn about using high-performance computers and dealing with vast data sets.

These opportunities are available in research laboratories at UQ, under the supervision of leading experts in bioinformatics and in a wide range of applied disciplines e.g. neuroscience, medicine and agriculture. Choose UQ’s bioinformatics postgraduate programs to increase your technical and research skills in core areas of bioinformatics and update your knowledge of recent technologies and methodologies. The programs will prepare you to take on key roles when personal genomics rolls out to clinics.

Career opportunities
Postgraduate study in bioinformatics will prepare you for a highly rewarding career in an industry that’s shaping the future of modern science.

As bioinformatics is a new and growing area, there is a world shortage of trained bioinformaticians and computational biologists. You can find employment in pharmaceutical and biotechnology companies, research organisations and governments in roles such as:

- Bioinformatician
- Biomedical computer scientist
- Biostatistician
- Clinical data manager
- Geneticist
- Medical writer/technical writer
- Research scientist
- Software/database programmer

future-students.uq.edu.au
LIAM MCINTYRE  Bioinformatics graduate

The Master of Bioinformatics allowed me to combine my knowledge of genetics with a skill set that makes me employable anywhere in the world. The massive amount of data now available means that all biologists do some bioinformatics and I wanted to be good at it. I chose to study bioinformatics at UQ because it has great teachers, great resources and a great international reputation.

This qualification has ensured that I can find employment now while also leaving open the option to pursue an academic career later on.

During my studies I learnt to code and to work with large data sets. Many of the skills I acquired are directly applicable to my current position working with Next Generation Sequencing diagnostics.

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**Program structure**

**Graduate Certificate in Bioinformatics**
- 8 units (0.5 year full-time or part-time equivalent)

**Master of Bioinformatics**
- 16 units (1 year full-time or part-time equivalent)
- 24 units (1.5 years full-time)

**Master of Bioinformatics Research Extensive**
- 24 units (1.5 years full-time or part-time equivalent)
- 32 units (2 years full-time or part-time equivalent)

**Sample courses**
- Advanced Bioinformatics
- Advanced Genome Informatics
- Algorithms & Data Structures
- Concepts in Bioinformatics
- Data Mining

**Entry requirements**

**Graduate Certificate in Bioinformatics**
Program code 5557
CRICOS Code: 075533A
Bachelor degree in Science, IT and fields of Engineering or an approved discipline, with UQ or equivalent GPA of 4.5 or above on a 7 point scale; or 5 years of work experience in the same discipline.

**Master of Bioinformatics (#16)**
Program code 5541
CRICOS Code: 076218J
An approved equivalent Bachelor degree in Science, IT and fields of Engineering or an approved discipline, with UQ or equivalent GPA of 4.5 or above on a 7 point scale; or 3 years of work experience in the same discipline.

**Master of Bioinformatics (#24)**
Program code 5542
CRICOS Code: 0762117K
An approved equivalent Bachelor degree in Science, IT and fields of Engineering, with an introduction in one or more subjects relevant to the study of bioinformatics, including molecular biology, computer science and statistics. UQ or equivalent GPA of 5 or above on a 7 point scale.

**Master of Bioinformatics Research Extensive (#24)**
Program code 5628
CRICOS Code: 085554G
An approved equivalent Bachelor degree (Honours) in Science, IT and fields of Engineering, or approved relevant discipline, incorporating a major research project or other significant research experience, with introductions to molecular biology, computer science and statistics. UQ or equivalent GPA of 5 or above on a 7 point scale.

**Master of Bioinformatics Research Extensive (#32)**
Program code 5598
CRICOS Code: 082610F
An approved equivalent Bachelor degree in Science, IT and relevant fields of Engineering or other relevant discipline, with an introduction in one or more subjects relevant to the study of bioinformatics, or a Graduate Certificate or Graduate Diploma in Bioinformatics. UQ or equivalent GPA of 5 or above on a 7 point scale.

**International Students: English Proficiency**
IELTS overall 6.5; reading 6; writing 6; speaking 6; listening 6. For other English Language Proficiency Tests and Scores approved for UQ, view the English proficiency policy at http://future-students.uq.edu.au/applying/english-language-proficiency-requirements.

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**LEADING RESEARCH**
Ninety five percent of UQ’s broad fields are now above or well-above world standard, and none are below (2015 Excellence in Research for Australia (ERA) assessment)

**INTERNATIONAL REPUTATION**
UQ is one of only three Australian members of the global Universitas 21, a founding member of the Group of Eight (Go8) universities, and a member of Universities Australia

**ESTEEMED TEACHERS**
More national teaching awards than any other Australian University

**GLOBAL LEADER**
Ranked in the top 50 in the world overall (QS World University Rankings, 2015-2016)

**SUCCESSFUL GRADUATES**
UQ graduates enjoy full-time employment rates and salaries higher than the national average

**WORLD-CLASS FACILITIES**
Access state-of-the-art laboratories and research facilities

**VIBRANT CAMPUSES**
Dynamic on campus environment, with over 190 sporting and cultural clubs and societies