



What can I do with a Degree in Life and Social Science?



Bachelor of Science (Z0416) (*Before 2010, Z046)
Bachelor of Science (Biosciences) (Z0416BSC)
Bachelor of Science (Biotechnology) (Z0416BIO)
Bachelor of Science (Honours) (Z0466)
Bachelor of Science (Biotechnology / Biochemistry) (Honours) (ESBH056)

2011

Please note: the information contained in this document was current as of January 2011. Refer to www.swinburne.edu.au/courses/ for the most current updates.

For entry and admission requirements for the above courses, go to the Swinburne website <http://courses.swinburne.edu.au/courses>

What can I do with this degree?

The biotechnology industry has expanded rapidly in the last few years and more opportunities are expected in healthcare, food production and environmental cleanup. In regard to the burgeoning drug industry based on genomics, it is expected that the growing family of new genomics, proteomics, and bioinformatics technologies will dominate the next decade's developments in therapeutics by greatly improving the efficiency and speed of the entire drug discovery, testing, and approval process. The biotechnology major may allow students to apply for membership of the Australian Society for Biochemistry and Molecular Biology.

The Bachelor of Science (Biosciences) combines studies in chemistry, biochemistry, human physiology, introductory microbiology and genetics. Graduates will gain the knowledge and skills to work in the chemical, biochemical, medical and biomedical science areas. They may also focus their career on experimental procedures, through the practical course material on biological sciences.

Employment may be gained across the following areas:

Medicine

- Medical genetics, genetic counseling, genetic nursing
- Gene testing, gene therapy
- Organ transplantation, fertility, and reproduction
- Public health
- Pharmaceutical industry and suppliers
- Pharmacogenomics
- Chemical, vaccine, medicine development and production
- Database development, operation, use
- Communication, work with regulatory agencies

Agriculture and Wildlife

- Genetic modification of foods and seeds
- Biopesticide and nutraceutical development
- Wildlife management: Identification, protection of endangered species
- Authentication of consumables such as wine, caviar

Computational Biology (including bioinformatics)

- Databases, analysis, modeling, and data transfer
- Supercomputing

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- Mathematics, statistics, actuarial field

Engineering Disciplines

- Bioprocessing chamber, vat design and production
- Toxic waste cleanup
- Instrumentation development
- Creation of new energy sources via engineering, life science research
- Biomedical engineering

Business

- Bioscience industry investment
- Marketing and sales
- Banking

Law and Justice

- Education
- Patent specialties
- Specialties in ethical, legal, and social issues
- Gene and paternity testing
- DNA forensics, laboratory and legal

History and Anthropology

- Use of genetics to study population-migration patterns
- Study of inheritance over evolutionary time

Military

- Soldier identification
- Pathogen identification
- Biological and chemical warfare protection
- Radiation-exposure assessment

Space Exploration

- Effects on humans
- Search for other life forms, evidence of life

Bench Science

- Sequencing of many organisms, including human
- Data analysis, computation
- Functional genomics
- Proteomics
- Human variation in health and disease
- Microbial genetics
- Environmental studies
- Education

Bioscience Communication

- Reporting, writing, editing
- Website development, maintenance
- Public relations
- Marketing

What industry sectors do Humanities graduates work in?

Private	57%
Education	9.5%
Health	2.1%
Other	14.1%
Government	17.4%

Source: <http://svc095.wic026v.server-web.com/gradsonline/>

What do Humanities graduates do after finishing their courses?

Working	75.9%
Searching	24.9%
Studying	30.2%

Please note: These figures include combinations of activities i.e. graduates who are searching for employment while also undertaking postgraduate studies.

Source: <http://svc095.wic026v.server-web.com/gradsonline/>

Job Prospects for Science (Biotechnology) Graduates will depend on the majors that they have completed. For specific information regarding employment prospects for alternate occupations please see

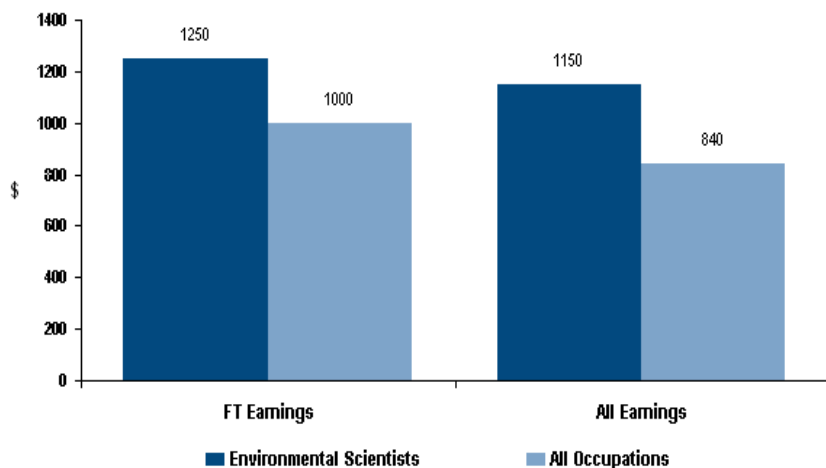
<http://joboutlook.gov.au/Careers>

Job Prospects for Life / Biological Scientists

- Job prospects for Life Scientists are good.
- Employment growth for Life Scientists to 2014-15 is expected to grow strongly. Employment in this small occupation (8800 in November 2009) increased slightly or remained steady in the past five years, and rose slightly in the long-term (ten years), but with small occupations employment estimates can fluctuate.

Source: Australian Government job search <http://jobsearch.gov.au/Careers>

Life / Biological Scientists Weekly Earnings (full time and before tax)



The graph shows weekly earnings - for full-time work and before tax - for workers of all ages for this occupation, compared with all occupations. These figures cannot be used in determining a particular wage rate or as an indication of what a particular person will earn in that job.

Source: ABS EEBTUM survey August 2009 cat. no. 6310.0.

Source: Australian Government job search <http://jobsearch.gov.au/Careers>

The skills and attributes required by Bachelor of Science (Biotechnology) and Bachelor of Science (Biosciences) graduates

- Mastery of the basic scientific principles that underpin biotechnology and the biosciences
- A sound and practical knowledge of laboratory techniques and practices through which scientific discoveries are made.
- An appreciation of the social context in which scientific work is undertaken and in which scientific knowledge is applied.
- An appreciation of the legislation that regulates scientific activities, particularly those that relate to biotechnology.
- Advanced communication and interpersonal skills, both verbal and written.
- An appreciation of the moral, ethical and social elements essential to a satisfying personal philosophy and a sound professional attitude.

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Swinburne Graduate Attributes

- Capable in their chosen professional, vocational or study areas
- Entrepreneurial in contributing to innovation and development within their business, workplace or community
- Effective and ethical in work and community situations
- Adaptable and able to manage change
- Aware of local and international environments in which they will be contributing (e.g. socio-cultural, economic, natural)

Examples of employers who have recently employed Swinburne Science (Biotechnology) graduates

Austin Hospital
www.austin.org.au

Ecowise
www.ecowise.com.au

Polynovo Biomaterials
www.polynovo.com

Bristol-Myers Squibb Australia
www.bmsa.com.au

GlaxoSmithKline
www.gsk.com.au

Vitapharm Research
www.vitapharm.com.au

CSIRO
www.csiro.au

Potential Employers

Careers and Employment have put together a list of potential employers
www.swinburne.edu.au/corporate/careers/employers_by_occupation.html

You can also refer to Graduate Careers Australia's publication Graduate Opportunities
www.graduateopportunities.com/

Specialist Recruitment Agencies

Swinburne Careers and Employment Recruitment Service

www.swinburne.edu.au/careers

- BDS Recruit
www.bdsrecruit.com
- Chemskill
www.chemskill.com.au
- Hahn Healthcare Recruitment
www.hahnhealthcare.com.au
- Kelly Scientific Resources
www.kellyscientific.com.au
- Macro Recruitment
www.macrorecruitment.com.au
- Pharmaceutical Professionals
www.pharmaceuticaljobs.com
- Science People
www.sciencepeople.com.au
- Techstaff
www.baysidegrp.com.au

Specialist Job Search Websites

- www.aushealthcare.com.au
- www.bioinnovationsa.com.au
- <http://biologyjobs.com>
- www.biophysics.org.au
- www.hacjobs.com.au
- www.easternhealth.org.au
- www.infoxchange.net.au
- www.newscientistjobs.com.au
- www.sciencepeople.com.au
- <http://scientistsolutions.com>
- www.southernhealth.org.au
- www.westernhealth.org.au

Additional general employment sites

- www.careerone.com.au
- www.graduateopportunities.com
- www.jobsearch.com.au
- www.mycareer.com.au
- www.myfuture.edu.au
- www.seek.com.au
- www.unigrad.com.au

Professional Associations

Professional associations may conduct conferences, seminars, presentation and social functions to help members keep abreast of current practices for networking purposes. For students, these events can be an excellent source of contacts and relevant information. Membership is usually open to students at a reduced rate.

- Australian Biotechnology Association www.ausbiotech.org
- Australian Society for Microbiology www.theasm.com.au
- The Australian Society for Biochemistry and Australian Government Molecular Biology www.asbmb.org.au
- Australasian Association of Clinical Biochemists Inc. www.aacb.asn.au/
- UniVac <http://www.univac.com.au/>
- Probono Australia (Skilled professionals voluntary Australian Institute of Medical Scientists positions in not for profit organisations) www.aims.org.au www.volunteermatch.com.au
- The Royal Australian Chemical Institute www.raci.org.au

Further Study Opportunities

Biotechnologists and Bioscientists also find opportunities once they earn a higher qualification, either through attaining honours, masters or PHD level qualification. As in many other science related fields, higher education qualification such as a PHD is considered advantageous over students with a single degree as it is considered specialised practical experience. Particularly with research this is considered valuable as postgraduate students receive longer term promotion and career opportunities.

Some specialisations for postgraduate bioscience and biotechnology courses include:

- bioinformatics
- forensic science
- biotechnology
- immunology
- toxicology

A range of postgraduate programs for Biotechnology and Bioscience students are offered at Swinburne University. Programs are offered as a nested suite, offering students that opportunity to exit at the graduate certificate, graduate diploma or master stage.

Graduate Diploma of Science in Biotechnology (Z011)

Master of Science in Biotechnology (Z012)

Master of Science in Biotechnology (Leadership Stream) (Z012L)

Career Opportunities: The courses aim to provide advanced education in biotechnology and to prepare students to undertaking diverse types of careers in this field. i.e. Medicine and health, agriculture, pharmaceutical and environmental industries, biotechnology businesses, as well as the education sector.

A full listing of all postgraduate courses offered by Swinburne is available at:

<http://www.swinburne.edu.au/postgrad/courses/>

What help does Swinburne Careers and Employment offer?

Career Services

- Daily Resume and Cover Letter Checks
- Daily Interview Practice
- Career Seminars / Workshops for Students
- Careers in the Curriculum (CIC) – Higher Education Students
- Student Recruitment Service (Final Year Students)
- Career Counselling

Career Resources

- Career Resource Library
- Job Search Handouts
- Interactive Career Planning

SwinEmploy Employment Service

- All job advertisements for graduate placements, casual, vacation, part-time and full-time employment
- Links to employer websites
- Enables students to book online for events such as workshops, employer information sessions and interviews
- Access to Going Global (over 10,000 job vacancies listed across Europe, Asia-Pacific, UK and US. Global key employer directories, work permits & visa regulations, country-specific cultural & interviewing advice & more)

Download Careers and Employment job search handouts from SwinEmploy, including:

- Addressing Selection Criteria
- Assessment Centres
- Cover Letters or Letters of Application
- Curriculum Vitae or Resume
- Employer Expectations of Graduates
- Interviews - How to Plan, Prepare and Perform
- Informational Interviewing
- Job Hunting
- Networking: What Is It and How Do You Do It?
- Online Applications
- Psychometric Tests
- Skills and Attributes
- Thinking About Changing Your Course?
- Tips for facing the work environment and your first professional job

The material in this document has been produced from the Graduate Destinations Survey, Swinburne University and Graduate Careers Council of Australia material, Graduate Opportunities, Australian Job Search, The Job Guide, Professional Associations and Careers and Employment's own research.

Careers & Employment
Swinburne University
Level 2, George Swinburne Building
Wakefield Street, Hawthorn VIC
Tel: 9214 5360
Email: careers@swin.edu.au
www.swinburne.edu.au/careers

Sourced from www.seek.com.au (2011)

Senior Sales Specialist - Speciality Chemicals! NSW - HUGE EARNING POTENTIAL \$\$\$

- Superior company profile - speciality chemicals
- World leading brand - selling into ALL MARKETS - like variety???
- Dynamic sales team - potential to earn BIG BUCKS and great company culture
- **Are you a chemistry geek???**
- **Love to work for the most well respected chemicals manufacturer there is??**
- **Want to enjoy a good life / work balance - promoted by the company!**
- **Fancy less travel - this territory is covering Sydney and some country travel**

Senior Sales Specialist - Speciality Chemicals! NSW – Sydney

Our client is one the market leading manufacturers of a wide range of speciality chemicals and reagents selling into ALL industries - academia, industrial, mining, petrochem, oil and gas and many more! Broad scope of products. Due to an internal promotion, they are now looking for an already established successful sales professional with the HUNGER to succeed and be rewarded for your hard work!! A STRONG chemical scientific background is essential with sales experience is a must! The role is to drive sales and provide technical support through a range of existing accounts but also to go after NEW BUSINESS within the all industries - chemical, mining, automotive, petrochemical, industrial and other great industries

The ideal candidate will have the following:

- 1-2 years + Field Sales Experience selling anything scientific but chemicals experience would be much preferred!!!
- A MUST - science degree preferable in biotechnology /biochemistry /physics with good LAB EXPERIENCE
- Mature attitude to work and be a self starter
- Proven sales success – do you smash your target??!!
- You will be a great relationship builder and love to talk technical!!
- Be able to work pro-actively and be highly motivated and ambitious.

To the successful candidate we offer an attractive package in region of \$70-90k base PLUS SUPERB COMMISSION STRUCTURE OF OTE in region of \$130k ++++++. If you are excited by this fantastic opportunity please APPLY NOW with your resume to rebecca.t@gemteq.com.au or 02 8243 1901 for a confidential discussion.

Only short listed candidates will be contacted.

Gemteq Executive is one of the largest specialist “Sales & Marketing” recruitment agencies. We currently have over 400 live vacancies across Australia.

Find the perfect role by visiting the Gemteq website where you will find some of the best sales and marketing roles in Australia!!!

Clinical Research Associate

- **Multinational Organisation**
- **Great team**
- **Rapid growth opportunities**

An internationally renowned contract research organisation requires a Clinical Research Associate to come on board. The company offers great growth opportunities to employees on account of their huge expansion plans.

As a Clinical Research Associate you will be responsible to perform, coordinate and oversee all aspects of the clinical monitoring and site management process in accordance with the registered guidelines. You will conduct site visits to assess protocol and regulatory compliance and manage required documentation. Additionally you will also be responsible for ensuring that data passes international quality assurance audits and represent the company in the global medical research community and develop and maintain collaborative relationships with investigational sites.

You will have a science related degree or a certification in health care training with experience in clinical research specific to monitoring clinical trials.

A successful candidate would be one with the eligibility to work in Australia. You could be an Australian or New Zealand citizen looking to move back or have a valid visa that permits you to work in Australia.

Please apply online using the appropriate link below. Alternatively, for a confidential discussion, please contact Tom Desborough on 02 8226 9782 or tom.desborough@hays.com.au.

Reference Number: 101-1097100