

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



Bachelor of Science (Z0416) (*Before 2010, Z046)

Bachelor of Science (Biochemistry & Chemistry) (Z0416BCH)

Bachelor of Science (Biochemistry & Chemistry) (Honours) (Z072Y)

Bachelor of Science (Chemistry) (Z0416CHE)

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 course, go to the Swinburne website <http://courses.swinburne.edu.au/courses>

What can I do with this degree?

With a degree in Biochemistry, an individual would find they have a vast list of careers available. The largest industry available for employment is that of pharmaceuticals followed by work with the human genome project. Other industries where a Biochemist would work include:

Private Sector

- Biotechnology
- Food and Drink (includes brewing)
- Health and Beauty Care
- Medical Instrument companies
- Chemical manufacturing companies
- Research Companies and Laboratories

Public Sector

- Scientific laboratories
- Agriculture and fisheries
- Hospitals
- Universities
- Public Health Entities
- Blood Service
- Forensic Science
- Overseas Development
- Public Health Laboratories
- National Blood Services
- Cancer research institutes
- Environmental Pollution Control

Biochemists in other industries

While most biochemist graduates tend to work in a traditional laboratory and research environment, some biochemists may be attracted to working within a scientific company but in more non-traditional roles. Possible careers may include recruitment agencies, sales, management and computing.

What industry sectors do Biochemistry graduates work in?

Private	47.6%
Education	15.5%
Health	15.1%
Other	13.0%

Government 8.9%

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

Some Occupational Titles

- Analyst
- Biotechnologist
- Chemist
- Industrial Chemist
- Laboratory Assistant
- Laboratory Demonstrator
- Laboratory Technician
- Life Scientist
- Microbiologist
- Process Development Scientist
- Project Officer
- Quality Control Chemist
- Radio Chemist
- Research Assistant

The skills and attributes required by Bachelor of Science (Biochemistry & Chemistry) graduates

- Demonstrate a wide knowledge of essential facts, major concepts, principles and theories associated with biochemistry and chemistry.
- Deploy appropriate practical and presentational techniques and methodologies including data analysis and the use of statistics to communicate results.
- Engage with current developments in the biosciences and their applications, and the ethical issues involved.
- Handle chemical materials safely, taking into account their physical and chemical properties, including any specific hazards associated with their use.
- Monitor and systematically record, chemical properties, events or changes
- Conduct risk assessments concerning the use of chemical substances and laboratory procedures.
- Apply numeracy and computational skills, including error analysis, order-of-magnitude estimations, correct use of units and modes of data presentation.

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 (eg socio-cultural, economic, natural)

What do Biochemistry graduates do after finishing their courses?

Working 78.1%

Searching 17%

Studying 54.7%

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

Please note: Those figures include a combination of activities i.e. Graduates who are searching for employment while also undertaking Post-grad studies.

Job Prospects for Science (Biochemistry & Chemistry) Graduates will depend on the majors that they have completed.

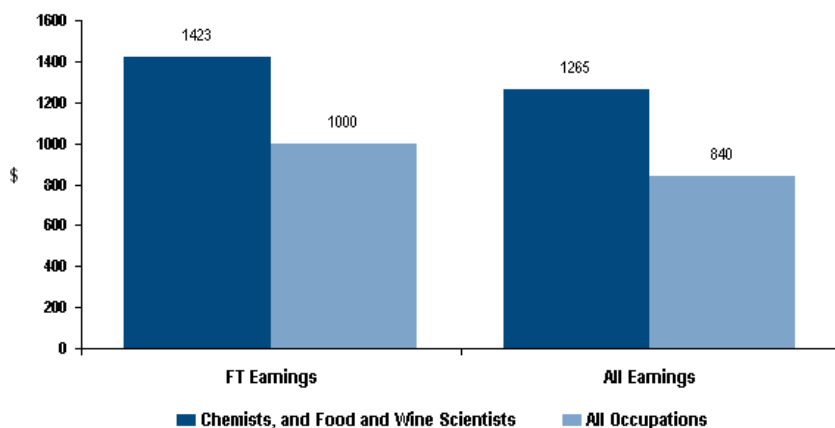
For specific information regarding employment prospects for alternate occupations please see

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

Job Prospects for Chemists, and Food and Wine Scientists

- Job prospects for Chemists, and Food and Wine Scientists are **average**.
- Employment for Chemists, and Food and Wine Scientists to 2014-15 is expected to **grow very strongly**. Employment in this medium sized occupation (12 600 in November 2009) rose very strongly in the past five years, and rose strongly in the long-term (ten years).

Chemists, and Food and Wine 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>

Examples of employers who have employed Swinburne Bachelor of Science (Biochemistry & Chemistry) graduates in 2010

Alphapharm

www.alphapharm.com.au

(Quality Control Analytical Chemist)

CSL Limited

www.csl.com.au

(Quality Control Immunology Chemist)

Pfizer

www.pfizer.com.au

(Analytical Chemist)

ProBiotec Pharma

www.probiotec.com.au

(Quality Control Analyst)

Some employers who have recently employed Swinburne Science (Biochemistry & Chemistry) graduates

Watermark patent and trademark attorneys

<http://www.watermark.com.au/>

CSL

<http://www.csl.com.au/home>

Potential Employers

Opportunities in the Biochemistry/Chemistry industry are varied; employers range from local, state and federal government to small businesses and large corporations.

Careers and Employment have put together a list of potential employers

www.swinburne.edu.au/careers/employers_by_occupation.html

You can also refer to Graduate Careers Australia's publication Graduate Opportunities <http://graduateopportunities.com/>

Specialist Recruitment Agencies

Swinburne Careers and Employment Recruitment Service

www.swinburne.edu.au/careers

- Beresford Blake Thomas Limited
www.bbtglobal.com.au
- Biotech Recruitment
www.biotechrecruitment.com.au
- Chemskill
www.chemskill.com.au
- Hahn Pharmaceutical & Healthcare Recruitment
www.hahnhealthcare.com.au
- Hahn Macro Recruitment
www.macrorecruitment.com.au
- Pharmaceutical jobs
www.pharmaceuticaljobs.com
- Ravens recruitment
www.ravenspharmacies.com.au
- Science Alert
www.sciencealert.com.au
- Science People
www.sciencepeople.com.au
- Sheelagh McKenzie Recruitment
www.sheelaghmckenzie.com

- Kelly Scientific
www.kellyscientific.com.au
- Locumco Recruitment
www.locumco.com.au
- Sydney Health Recruitment
www.sydneyhealth.com.au
- Tech Staff
www.techstaff.com.au

Specialist Job Search Websites

- www.aacb.asn.au
- www.asbmb.org.au
- www.aapb.org
- www.alliedhealth.com.au
- www.aushealthcare.com.au
- www.alexanderleigh.com
- www.bioinnovationsa.com.au
- http://biologyjobs.com
- www.biophysics.org.au
- www.counsellorjobs.com.au
- www.dhs.vic.gov.au/careers/vacancies.htm
- www.ebcrc.com.au
- www.epworthjobs.com.au
- www.justhealthjobs.com.au
- www.easternhealth.org.au
- www.epworthjobs.com.au
- www.infoxchange.net.au
- www.newscientistjobs.com.au
- www.psychxchange.com.au
- www.psychsociety.com.au
- www.sciencejobs.com/splash.action
- www.sciencepeople.com.au
- http://scientistsolutions.com
- www.southernhealth.org.au
- www.westernhealth.org.au
- www.hacjobs.com.au

Professional Associations

Professional associations may conduct conferences, seminars and presentations for social functions to help members keep abreast of current practices and 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.

- Australia's Biotechnology Association
www.ausbiotech.org
- Australian Institute of Medical Scientists
www.aims.org.au
- Australian Society for Biochemistry and Molecular Biology
www.asbmb.org.au
- The Australian Society for Microbiology
www.theasm.com.au
- The Royal Australian Chemical Institute
www.raci.org.au

Additional general employment sites:

- www.careerjet.com.au
- www.careerone.com.au
- www.graduateopportunities.com
- www.jobsearch.com.au
- www.jobsearch.gov.au/joboutlook
- www.mycareer.com.au
- www.myfuture.edu.au
- www.seek.com.au
- www.simplyhired.com.au
- www.unigrad.com.au

Further Study Opportunities

Biochemists 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 biochemistry courses include:

- Bioinformatics
- Forensic science
- Biotechnology
- Immunology
- Toxicology

A range of postgraduate programs for Biochemistry and Chemistry 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)

Career Opportunities: The courses aim to provide advanced education in biotechnology and to prepare students to undertaking diverse types of careers in this field. eg. 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.

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

ADVERTISEMENT EXAMPLES

Sourced from www.seek.com.au (December 2010)

Graduate Chemist - Rigid Polymers

- Join a Chemical Giant and Watch your Career Grow!
- Suits Hands On Chemist!
- Grads Encouraged to Apply!

Are you looking for a career in polymers?

Would you like to be involved in product development? Yes? Read on!

Our client, a global giant in the chemical industry, is seeking a graduate chemist to join their Melbourne operations.

The position is quite hands on requiring the candidate to work closely with team members and management to develop, formulate and alter polyurethane products to meet changing customer needs.

In addition, you will be expected to contribute to building excellent working relationships with the customers. In time you will be able to provide support and recommend changes to enhance manufacturing efficiencies.

To be selected for this position, you will need to meet to following criteria:

- Tertiary qualifications in Chemistry, Polymers, Material Science or Engineering.
- Solid practical laboratory skills with a good mechanical aptitude
- Ability to self manage work load with strong organisational skills
- Some formulation experience within adhesives/coatings will be advantageous
- EXCELLENT interpersonal and relationship development skills as you will be dealing with external customers as well as internal parties
- Excellent communication skills, both written and verbal

To apply for this position, please send your covering letter addressing the above criteria with a current resume by using the link below.

To discuss this position, please feel free to call Helen or Marie on (03) 9516 0100 during office hours.

All applications will be treated in the strictest confidence. Please note that due to the large number of applications we receive, only those that are short-listed will be contacted for an initial screening interview. All applicants CV's will remain on our database to be considered for future positions.

**CHEMSKILL RECRUITMENT DIVISION
LEVEL 4, 566 ST KILDA ROAD
MELBOURNE VIC 3004
PH: 03 9516 0100**

TO REGISTER
resumesvic@chemskill.com.au
Ph: 03 9516 0100

www.chemskill.com.au

Celebrating 22 Years of Recruitment in 2010

Research Assistant - Clinical Diabetes & Epidemiology

- 1 Year Contract
- Part Time (0.8 FTE)
- Generous Salary Packaging Options

Baker IDI Heart and Diabetes Institute was established in 2008 following the merger of the Baker Heart Research Institute and the International Diabetes Institute. Baker IDI is the nation's first multi-disciplinary organisation tackling the deadly trio of obesity, diabetes and cardiovascular disease through research, education and patient care.

We are seeking a motivated and enthusiastic Research Assistant to join our Clinical Diabetes and Epidemiology unit. One of the projects within Clinical Diabetes and Epidemiology Unit involves exploring the relationship between diabetes and cancer. This project involves the assembly of 17 longitudinal studies in Australia and New Zealand into a large pooled dataset. This pooled cohort will be linked to the national cancer registry to collect cancer outcomes. Analyses exploring the association between diabetes and cancer will then be undertaken.

The research assistant will help the investigator to establish this project, liaise with the key stakeholders and data custodians, and prepare the relevant ethics applications to the various bodies.

The successful candidate will be a Science Graduate in a health-related discipline with some experience in public health and/or epidemiological research. Statistical analyses using STATA or SPSS and Excel is highly regarded but not essential. Experience with basic biostatistics would also be advantageous.

In this role you will be expected to perform the following key objectives:

- Prepare ethics applications and meet deadlines relating to ethics submissions
- Liaise with data custodians across Australia and set up and manage a steering committee of stakeholders
- Prepare publication guidelines and protocols describing the study
- Translate and interpret data, assist in data presentations
- Perform data cleaning and data harmonisation as directed
- Assist in the design and implementation of statistical techniques and computer data systems

A team player with high level interpersonal skills, you should also be able to work unsupervised, meet deadlines and be detail oriented. The position offers flexibility and generous salary packaging options. Remuneration will be commensurate with the successful candidate's qualifications and experience.

Applications should include a current resume with details of 3 professional referees quoting reference DM01. For a position description, further information or to apply, please visit our website at: www.bakeridi.edu.au. To be eligible to apply for this position you must have an appropriate Australian or New Zealand work visa.

Terry Schroeder, Recruitment Officer
Baker IDI Heart and Diabetes Institute
03 8532 1111 or 03 8532 1575