



\*\* Please note – the information contained in this handout is accurate as at January 2011. Information regarding employment prospects/salary/growth is based on information derived from [www.skillsinfo.gov.au](http://www.skillsinfo.gov.au), [www.joboutlook.gov.au](http://www.joboutlook.gov.au) and Careers and Employment's own research.

2011

Please note: the information contained in this document was current as of January 2011. Refer to [www.swinburne.edu.au/courses/](http://www.swinburne.edu.au/courses/) for the most recent updates. Refer to the School of Science website [www.tafe.swinburne.edu.au/science/](http://www.tafe.swinburne.edu.au/science/) for further information and a list of the courses offered in this area.

### Industry Overview

The Professional, Scientific and Technical Services industry employs approximately 855,000 persons, full-time and part-time, which is around 7.6 per cent of the total workforce. Over the past five years, employment in the industry has increased at a rate of 4.1 per cent per annum. As a whole the industry is quite large and job roles are diverse, however, there is a relatively small number of people working specifically in the scientific research services sector (i.e. undertaking laboratory/research work).

Career paths in this industry vary markedly according to the specific area of professional activity. A common factor is that education and training levels are very high in comparison to other industry sectors. To be employed as a laboratory worker, the completion of some further study of a vocational nature, such as a Diploma or an Advanced Diploma, is appropriate.

Swinburne University of Technology's TAFE division delivers a number of science-based courses that are well regarded by industry. Students can study Public Safety, Laboratory Technology (Biotechnology), Laboratory Operations and Fire Technology.

### Typical Job Titles

- Assistant Practitioner (Science/Multimedia)
- Computer Technician
- Chemical Process Operator
- Laboratory Manager/Attendants
- Medical Laboratory Technicians
- Multimedia Developer
- Science Technicians
- Research Assistant
- Retail Pharmacist
- System Analyst
- Technical Assistant/Officer
- Fire Safety Officer

### Fire Technology/Fire Fighting Operations

A course in Fire Technology equips students with the technical skills and knowledge and to train practitioners and designers to work with engineers and related professionals in the development, commissioning, monitoring and assessment of fire protection systems for buildings practices. Career outcomes include employment as a practitioner in fire protection, essential services or fire systems design, or as a fire safety officer. Prospects for Safety Officers are currently good and expected to remain steady over the next five years

A qualification in Public Safety (Fire Fighting Operations) is designed to further develop knowledge and skills in fire fighting. Students undertaking this course will ideally be currently engaged in fire fighting activities in the community or workplace. The course will require access to a suitable workplace environment, which includes a supportive workplace coach or mentor to supervise aspects of learning on the job. Student's who have completed this qualification may find careers in the fire fighting industry. Employment prospects for Fire and Emergency workers are average and are expected to grow moderately during 2012-2015.

## **Laboratory Technology**

Laboratory Technology courses can have a general focus or students can elect to specialise in certain fields such as biotechnology, forensics and pathology. Courses encompass a wide range of skills, techniques, and processes, so that graduates are adaptable and competent to meet the technological and administrative demands of a changing laboratory workforce. Employment may be gained as laboratory technicians, technical officers or medical technicians, working independently or under supervision in industrial, research, pathology or educational laboratories.

Many laboratory technicians/operators work in hospital laboratories. Other places of employment are public health laboratories, reference laboratories, biomedical companies, universities, industrial medical laboratories, pharmaceutical companies and forensic medicine. Current job prospects for Science Technicians are average; however, employment for Science Technicians to 2014-15 is expected to grow strongly.

Laboratory Operations studies provide a broad and flexible package of competencies which meet the needs of laboratory personnel across many industries. Graduates may be employed in positions such as sampler/tester working in manufacturing or in a field environment, laboratory/technical assistant working in construction materials testing, laboratory assistant working in a food company, technician working in a mineral assay laboratory, technical assistant working in environmental monitoring, technical officer working in biotechnology, calibration technician and so forth.

## **Laboratory Technology/Sustainability**

A dual award in Laboratory Technology and Sustainability provides students with the opportunity to graduate with a qualification in laboratory technology and, in the latter part of their studies, to gain a second qualification in sustainability. Sustainability is increasingly being recognised as a core objective in both business and government. Students will develop an understanding of these issues as they relate to the sciences and will be able to apply principles of sustainability in laboratory work. Graduates may gain employment in various support roles to scientists in research, education and within industry.

## **Further Education and Pathways**

Students may also choose to complete further study after completing their TAFE course. Direct credit transfer pathways exist for students studying the Diploma of Laboratory Technology courses into the Bachelor of Science courses.

Alternate credit pathways may be available from TAFE to Higher Education.

For a full list of credit pathways and requirements, see the Swinburne website:  
[www.future.swinburne.edu.au/pathways](http://www.future.swinburne.edu.au/pathways)

For entry and admission requirements: [www.swinburne.edu.au/courses](http://www.swinburne.edu.au/courses)

## **References and Relevant Websites**

- [www.joboutlook.gov.au](http://www.joboutlook.gov.au)
- [www.myfuture.com.au](http://www.myfuture.com.au)
- [www.mshealthcareers.com](http://www.mshealthcareers.com)

## What help does Swinburne Careers and Employment offer?

### Career Services

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

### Career Resources

- Career Resource Library
- Job Search Handouts
- Interactive Career Planning
- What Can I Do With My Degree / TAFE Qualification? (see website for resource)

### 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

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