The laboratory science courses at the South West Regional College of TAFE open up a wealth of job possibilities to graduates within the broad scope of scientific fields, such as mining and mineral processing, medicine and pathology, food processing and agriculture.

Laboratory science qualifications are offered at a range of levels to suit the entry requirements of all students. The Certificate II in Sampling and Measurement and Certificate III in Laboratory Skills are run over a single semester, so that within six months students can acquire the skills and knowledge to gain employment as a laboratory assistant. To further enhance career prospects and reach the higher level occupation of a laboratory technician, the Certificate IV in Laboratory Techniques or the Diploma of Laboratory Technology can be completed in four semesters. Part-time study is also available.

With a focus on practical skills, laboratory science training provides an interesting insight into the fields of chemical, biological and physical sciences. Students are trained in safe lab working practices, and will undertake a range of sampling, measurements, chemical experiments and biological testing. They work with many types of laboratory equipment, including glassware, microscopes, analysers and computer systems. Work experience opportunities in local laboratories may be accessed.

Laboratory science graduates have many exciting opportunities in scientific employment, and can also qualify for entry into many science university courses, such as the Applied Sciences, Environmental Science, Medical Science and Forensic Science.
The scope of laboratory science

Graduates in laboratory qualifications often assist scientists, supervisors and managers in the physical, chemical and biological sciences.

The duties of laboratory assistants and technicians include:

• collecting, classifying and preserving samples
• carrying out routine procedures, such as water or soil testing (environmental labs), blood testing (pathology), testing ore samples (mining and mineral processing) and fermentation (wine production)
• performing routine control tests on physical, chemical and biological samples and equipment, using a range of instruments and record-keeping and reporting techniques
• performing routine mathematical calculations and preparing graphs
• using computers and computer-interfaced laboratory equipment
• ensuring that equipment for use in experiments is clean and well maintained

Entry requirements

Certificate II in Sampling and Measurement

- Communication skills

Certificate II in Laboratory Skills

- Communication skills

Certificate IV in Laboratory Techniques

- Communication skills
- Math skills

Diploma of Laboratory Technology

- Communication skills
- Math skills

For more information of TAFEWA entrance requirements please visit www.tafe.wa.edu.au.

Personal attributes that will enhance your chances of success in this career include:

• an interest in science and technology
• good oral and written communication skills
• ability to produce accurate and detailed work
• manual dexterity skills
• good eyesight and normal colour vision
• ability to work as part of a team
• good organisational skills

What laboratory science qualifications offer you

The aim of the laboratory science courses is to impart the knowledge and practical skills to operate safely and effectively in these job roles and duties. The units undertaken in these courses provide training in, for example:

- sampling, measurements and routine testing
- the production of chemical solutions and the carrying out of chemical experiments
- maintaining laboratory safety, including the safe handling of dangerous materials (such as chemicals) or biological hazards
- recording data and the use laboratory computing programs
- biological procedures, including the culture of micro-organisms, aseptic techniques, microscopy and blood tests
- organisational and communication skills
- quality control procedures
- maintenance and use of laboratory equipment, materials, instruments and analysers

Employment opportunities

Certificate III in Laboratory Skills graduates secure the opportunity to become laboratory assistants.

By pursuing the Certificate IV in Laboratory Techniques or Diploma of Laboratory Technology, employment can be gained as a laboratory technician, technical officer or field officer. Following suitable work experiences, these graduates can become senior technicians or supervisors in their laboratory workplace.

Training is provided to gain the knowledge and skills for employment in the areas of analytical services; mining and mineral processing; food production and processing, including in the dairy and wine industries; essential oils and cosmetic manufacture; therapeutic goods manufacture; soil or water testing and environmental monitoring; agriculture and horticulture; road testing; and pathology or medical research.

Further study options

Students are encouraged to undertake the Certificate III in Laboratory Skills as the entry level to all Laboratory Science courses. This means that a qualification can be attained after only six months of study. The Certificate III is also equivalent to the first semester of the Diploma of Laboratory Technology course, so only three more semesters have to be undertaken to achieve the Diploma level following the successful completion of the Certificate III.

Achievement of the Diploma of Laboratory Technology is a great option for students looking to qualify for entry into science university courses, and may receive credits for their study for a number of units in some courses.

Further information

Contact our Information and Career Advisory Officers on 1800 621 445 or (08) 9780 7070
Email: courseinfo@bunbury.training.wa.gov.au
Website: www.swrc.wa.edu.au