and emphasise learning in the workplace through placements in primary and secondary schools and in community education groups. To qualify for teaching in secondary schools graduates from the Bachelor of Science (Specialisations in Biotechnology, Chemistry or Environmental Management) must apply for and complete the Graduate Diploma in Secondary Education.

COURSE DURATION

This course is 3 years.

WHERE DO I STUDY?

This course is available on Footscray Park and Werribee campuses.
Year 1: Footscray Park campus. Year 2 and 3: Werribee campus.

HOW DOES IT WORK?

This course is offered over three years on a full time basis or part time equivalent.

HOW DO I GET IN?

To qualify for admission to the course, an applicant must have successfully completed a course of study at year 12 or equivalent.

Year 12 Prerequisites: Units 3 and 4 - study score of at least 20 in English (any) and in mathematics (any).

Selection Mode: Current year 12 applicants: ATAR and two-stage process with a middle-band of approximately 20%.

Middle-band: Completing biology, chemistry, environmental science, physics or specialist mathematics = an aggregate 3 points higher per study, to a maximum 9 points. Consideration may also be given to the SEAS application and the Victoria University West + five scheme. Overall maximum of 15 aggregate points.

PORTFOLIO PARTNERSHIP PROGRAM

At Victoria University (VU) we believe Year 12 students should have the opportunity to get into VU based on more than just their ATAR. The Portfolio Partnership Program (PPP) is an alternative entry program for Year 12 students who attend one of our partnership schools. PPP is about VU assessing your application based on your goals, achievements and community involvement, not just your ATAR.

ALTERNATIVE ENTRY

Applicants who do not meet the normal admission requirements but who possess appropriate educational qualifications, work or life experiences that would enable them to successfully undertake the course, will be considered for admission.

Persons of Aboriginal or Torres Strait Islander descent are encouraged to apply for admission. Applicants will be assessed on an individual basis to determine their suitability and potential for success in the course.

Applicants over the age of 21 years on the 1st January for the commencing academic year are eligible to apply for consideration under Mature Age entry.

Applicants who consider that their capacity to qualify under normal entry provisions has been limited through disadvantage, for example, illness, disability, financial hardship or isolation, are eligible to apply for consideration as a disadvantaged person. Applicants will be assessed on an individual basis to determine their suitability and potential for success in the course.

Students who successfully complete the VU Alternative Entry or Foundations Studies courses will be offered access into the SBSC degree.

FOUNDATION YEAR

This is a one-year full time course for students whose VCE results or subjects were not satisfactory to gain entry to a science or engineering course at university or for those who want to return to study. Subjects covered are biology, chemistry, English language and communication skills, information technology, mathematics and physics. Maths and English subjects are compulsory but an English test may exempt some students from English. Successful completion of appropriate subjects will guarantee student's entry to our Health, Engineering and Science courses at Victoria University. Applications must be made directly to Victoria University, not through VTAC.

PATHWAYS

Articulation is the creation of links or study pathways to enable students to move easily between courses as student needs change. Victoria University has a commitment to actively promote and maintain these articulation pathways. Articulation gives students the opportunity to progress to another level of study and to receive maximum credit transfer for study already taken.

Provision will be made for articulation from TAFE science programs with appropriate credit. For further details regarding articulation such as recognition of prior learning or credit transfer in relation to this course, please contact the Course Coordinator.

SPECIAL ADMISSION REQUIREMENTS

SUCCESSFUL APPLICANTS

Community science units of study include placements within schools and other community settings.

Police check: Students may be required to complete a National Police Record Check prior to undertaking Community Science units of study.

Working with Children Check: Students must complete a Working with Children Check prior to undertaking Community Science units of study.

HOW DO I APPLY?

Applications should be made through VTAC:
40 Park Street, South Melbourne, 3205.
Phone: 03 9690 7977
Web: vtac.edu.au

For further information on applying for courses at VU go to vu.edu.au/futurestudents

INTERNATIONAL STUDENTS

For specific information about entry requirements, application procedures and an updated list of courses offered to international students, please visit vu.edu.au/international or contact Victoria University International (VUI) on +61 3 9919 1164.

CONTACT US

THE FACULTY OF HEALTH, ENGINEERING AND SCIENCE

SCHOOL OF ENGINEERING AND SCIENCE

Victoria University
Footscray Park Campus
PO BOX 14428 Melbourne Vic 8001
Phone: 03 9919 4703
Email: engineeringscience@vu.edu.au

vu.edu.au

CRICOS Provider No. 00124K

OTHER INFORMATION

Information about course fees, articulation and credit transfer, recognition of prior learning, admission and enrolment procedures, examinations, and services available to students can be accessed on the University's website or by contacting the University directly on 03 9919 6100.

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VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

BACHELOR OF SCIENCE
(SPECIALISATIONS IN BIOTECHNOLOGY, CHEMISTRY OR ENVIRONMENTAL MANAGEMENT)

COURSE CODE: SBSC VTAC CODE 40691

COURSE DESCRIPTION

The Bachelor of Science (Specialisations in Biotechnology, Chemistry or Environmental Management) course offers specialisations in the three science disciplines listed below.

- Biotechnology
- Chemistry
- Ecology and Environmental Management

Students can choose to specialise in one or two of these science disciplines. This is a three year course with a common first year and a choice of sub-specialisations in the latter two years that allows students the flexibility to add other studies of interest to their specialisation. Sub-specialisations can be chosen from health, engineering, science, arts, business and law. Sub-specialisations are subject to the approval of the course coordinator and may be limited by prerequisite requirements and timetable clashes. Science sub-specialisations are listed below.

- Analytical Chemistry
- Cell biology/Microbiology
- Community Science
- Computing
- Environmental Science
- Environmental Assessment and Analysis
- Forensic Chemistry
- Mathematics
- Molecular Biology
- Statistics.

The course is industry focussed, offers an intensive hands-on laboratory and fieldwork experience, has modern laboratories with state-of-the-art equipment, provides opportunities for industry projects and placements and overall better prepares students for careers in the science profession. Those students with scientific research in mind can progress into Honours and postgraduate studies (subject to performance in the degree program).

WHAT'S IN IT FOR ME?

The course will produce graduates with a thorough knowledge of contemporary science for careers in industry, government and education. The flexibility of the course allows students to customise their learning towards current and future career demands.

BIOTECHNOLOGY SPECIALISATION

Biotechnology involves the use of biological cells and their components for the benefit of society. It includes the application of the latest technologies to solve medical, environmental and agricultural problems.

The biotechnology specialisation prepares students for exciting careers in cutting edge science. It provides in-depth education in many areas of modern biology including genetic engineering, medical research, cloning, forensic biology, environmental biotechnology, microbiology and biochemistry.

There is a strong emphasis on the development of laboratory-based skills for which the university is equipped with state-of-the-art facilities.

CAREERS

Biotechnology graduates pursue careers in a variety of areas including medical and pharmaceutical research, forensic science, agriculture and aquaculture, the food and beverage industry and education.

CHEMISTRY SPECIALISATION

The chemistry specialisation has a strong industry focus and will produce graduates that are 'work- ready' by combining an extensive laboratory program with training on state-of-the-art equipment along with an industry placement program. The course combines studies in analytical, forensic and organic chemistry to develop measurement and investigative skills that are highly sought after by industry. After completing second year, students have the opportunity to work in one of over twenty chemical industries as part of their studies.

The laboratory program includes hands-on training in modern analytical techniques including atomic absorption spectroscopy, inductively coupled plasma optical emission spectroscopy, gas chromatography including gas chromatography-mass spectrometry, liquid chromatography including liquid chromatography-mass spectrometry, ion chromatography, ultraviolet and visible spectroscopy, fluorescence spectroscopy and Fourier transform infra-red spectroscopy. Over a million dollars of state-of-the-art analytical equipment has recently been acquired and extensive training on this equipment including applications, theory of operation, optimisation, maintenance and troubleshooting forms a major part of second and third year studies. The laboratory program is designed to give our chemistry graduates a genuine head start into the work force.

CAREERS

Industries that employ our chemistry graduates include: agricultural chemicals, brewing and wine making, chemical analysis, cosmetics, dairy, environmental science and water, food, forensics, horticulture, industrial chemicals, materials and polymers, petrochemicals, pharmaceutical, scientific sales, state and federal government departments.

ECOLOGY AND ENVIRONMENTAL MANAGEMENT SPECIALISATION

Australia and the rest of the world face significant challenges in balancing the needs of a sustainable society while protecting the natural environment. The Ecology and Environmental Management specialisation develops skills in environmental sciences that underpin achievable sustainability strategies. Subjects combine extensive practical experience in the field (terrestrial, marine and freshwater environments) and laboratory, with theory that is based on current research and management practices.

In partnership with industry, government agencies, researchers and the community, this specialisation produces graduates that are 'work-ready'. An emphasis on environmental research methodology across all subjects also leads to a high uptake into more highly specialised honours and postgraduate research projects.

The Ecology and Environmental Management specialisation develops the knowledge and practical experience for working across social, environmental and economic contexts, to achieve ecological sustainability.

CAREERS

Careers in ecology and environmental management include: landcare/bushcare coordinator; environment officer or environmental planner; restoration ecology and land management officer; marine and freshwater ecosystem management officer; environmental educator; botanist/zoologist/ecologist and ecological and resource assessor.

PATHWAYS TO A CAREER IN TEACHING

The course offers a selection of units in mathematics and science, including six new innovative community science units, which prepare students wishing to pursue careers as maths/science teachers. The community science units are unique

COURSE STRUCTURE

POSSIBLE COMBINATIONS

Common Year 1	Specialisation	Sub-specialisation	Sub-specialisation
OR			
Common Year 1	Specialisation	Specialisation	

COMMON FIRST YEAR

Global Environmental Issues
Biology
Chemistry
Mathematical Foundations
Introduction To Computing And The Internet
Applied Statistics

SECOND YEAR AND THIRD YEAR

BIOTECHNOLOGY SPECIALISATION	CHEMISTRY SPECIALISATION	ECOLOGY AND ENVIRONMENTAL MANAGEMENT SPECIALISATION
Microbiology	Organic Chemistry 2A	Australian Landscapes And Biota
Biochemistry	Analytical Chemistry 2A	Australian Animals
Cell Biology	Forensic Chemistry 2	Fundamentals Of Ecology
Molecular Genetics	Analytical Chemistry 2B	Australian Plants
Genetic Engineering	Analytical Chemistry 3A	Marine and Freshwater Ecology
Comparative Immunobiology	Forensic Methods 3A	Conservation And Sustainability
Bioprocessing Applications	Analytical Chemistry 3B	Environmental Rehabilitation
Genomics, Proteomics and Bioinformatics	Industry Project	Conservation Genetics
Industry Project		Industry Project

SUB-SPECIALISATIONS YEAR 2 AND YEAR 3

Sub-specialisations may be chosen from the Faculty of Health, Engineering and Science, Faculty of Arts, Education and Human Development or Faculty of Business and Law in consultation with the Course Coordinator. The following rule applies: Only one sub-specialisation can be taken outside the Faculty of Health, Engineering and Science.