

Certificate III in

Food Processing (Retail Baking - Bread)

National Course Code: **FDF30600**

General Information

The Victorian Implementation Guide for the Food Processing Industry Training Package (Retail Baking) was prepared on behalf of the Office of Employment, Training and Tertiary Education and will be in effect as of January 1st 2002. It replaces all Training Packages for the Baking Industry.

Career Opportunities

This course offers the opportunity for a person who wishes to obtain a formal qualification in retail/wholesale franchise or in-store situation in the bread baking sector.

Mode of Study and Location

The training for this Apprenticeship is conducted over three years. All training and assessments are conducted in the workplace and a minimum of five visits per year will be made to the workplace by a qualified Assessor.

Entry Requirements

Participants must be employed as an apprentice in the baking industry.

Course Structure

This course is packaged to a qualification level according to the needs of the industry.

Course Content

Units to be completed by the end of the Apprenticeship

Unit Code	Units - FIRST YEAR
FDFCORCOM1A	Communicate in the Workplace
FDFCORNUM1A	Apply Basic Mathematical Concepts
FDFCOROHS1A	Apply Safe Work Procedures
FDFCORQA1A	Apply Basic Quality Assurance
FDFCORFS1A	Apply Basic Food Safety Practices
FDFCORCOM2A	Collect, Present and Apply Workplace Information
FDFCOROHS2A	Implement Occupational Health and Safety Principals and Procedures
FDFCORQA2A	Implement the Quality System

Unit Code	Units - SECOND YEAR
FDFCORFS2A	Implement the Food Safety Plan

FDFCORCOM3A	Analyse and Convey Workplace Information
FDFCOROHS3A	Monitor the Implementation of Occupational Health and Safety
FDFCORQA3A	Monitor the Implementation of the Quality System
FDFCORFS3A	Monitor the Implementation of the Food Safety Plan
FDFRBP2A	Produce Bread Dough
FDFRBSM2A	Scale and Mould Dough for Intermediate Proof
FDFRBFM2A	Conduct Final Mould and Final Proof
FDFRBBB2A	Bake Bread

Unit Code	Units - THIRD YEAR
FDFRBF2A	Freeze Dough
FDFRBRD2A	Retard Dough
FDFRDBB3A	Diagnose and Respond to Produce and Process Faults (bread)
FDFRBP3A	Participate in Product Development
FDFRBS3A	Plan and Schedule Production
WRROS.4A	Co-ordinate Interaction with Customer

Assessment

Competency based training assists Apprentices to gain specific competencies that are required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

Horsham Campus

Kellie Uytdehaag
School of Manufacturing Services – Applied Science
Telephone (03) 5362 2721

Certificate III in

Food Processing (Retail Baking – Cake & Pastry)

National Course Code: **FD30500**

General Information

The Victorian Implementation Guide for the Food Processing Industry Training Package (Retail Baking) was prepared on behalf of the Office of Employment, Training and Tertiary Education and will be in effect as of January 1st 2002. It replaces all Training Packages for the Baking Industry.

Career Opportunities

This course offers the opportunity for a person to work as a pastry cook in the baking sector of the industry.

Mode of Study and Location

The training for this apprenticeship is conducted over three years. All training and assessments are conducted in the Workplace and a minimum of five visits per year will be made to the workplace by a qualified Assessor.

Entry Requirements

Participants must be employed as an apprentice in the Baking Industry.

Course Structure

This course is packaged to a qualification level according to the needs of the industry.

Course Content

Units to be completed by the end of the apprenticeship

Unit Code	Units - FIRST YEAR
FD3CORCOM1A	Communicate in the Workplace
FD3CORNUM1A	Apply Basic Mathematical Concepts
FD3COROHS1A	Apply Safe Work Procedures
FD3CORQA1A	Apply Basic Quality Assurance
FD3CORFS1A	Apply Basic Food Safety Practices
FD3CORCOM2A	Collect, Present and Apply Workplace Information
FD3COROHS2A	Implement Occupational Health & Safety Principals & Procedures
FD3CORQA2A	Implement the Quality System

Unit Code	Units - SECOND YEAR
FD3CORFS2A	Implement the Food Safety Plan
FD3CORCOM3A	Analyse and Convey Workplace Information

FD3COROHS3A	Monitor the Implementation of Occupational Health & Safety
FD3CORQA3A	Monitor the Implementation of the Quality System
FD3CORFS3A	Monitor the Implementation of the Food Safety Plan
FD3FRBPC2A	Produce Sponge, Cake and Cookie Batter
FD3FRBBC2A	Bake Sponges, Cakes and Cookies

Unit Code	Units - THIRD YEAR
FD3FRBPP2A	Produce Pastry
FD3FRBFF2A	Form and Fill Pastry Products
FD3FRBPF2A	Prepare Fillings
FD3FPABP2A	Bake Pastry Products
FD3FRBDC3A	Diagnose and Respond to Product and Process Faults (Cakes and Cookies)
FD3FRBDP3A	Diagnose and Respond to Product and Process Faults (Pastry)
FD3FRBPD3A	Participate in Product Development
FD3FRBPSP3A	Plan and schedule production

Assessment

Competency based training assists apprentices to gain specific competencies that are required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

Horsham Campus
Kellie Uytdehaag
School of Manufacturing Services – Applied Science
Telephone (03) 5362 2721

Certificate III in

Food Processing (Retail Baking – Combined)

National Course Code: **FD30700**

General Information

The Victorian Implementation Guide for the Food Processing Industry Training Package (Retail Baking) was prepared on behalf of the Office of Employment, Training and Tertiary Education and will be in effect as of January 1st 2002. It replaces all Training Packages for the Baking Industry.

Career Opportunities

This course offers the opportunity to persons who wish to obtain a formal qualification in baking.

Mode of Study and Location

The training for this apprenticeship is conducted over three years. A minimum of five visits per year will be made to the workplace by a qualified Assessor. All training and assessments are conducted in the workplace with the exception of Decorate Cakes and Cookies, which is conducted at the University of Ballarat, Horsham Campus over a period of two days.

Entry Requirements

Participants must be employed as an apprentice in the Baking Industry.

Course Structure

The course is divided into a series of modules, which cover all the subject areas providing a comprehensive learning and review program of the skills and knowledge required.

Course Content

Units to be completed by the end of the apprenticeship

Unit Code	Units - FIRST YEAR
FD3CORCOM1A	Communicate in the Workplace
FD3CORNUM1A	Apply Basic Mathematical Concepts
FD3COROHS1A	Apply Safe Work Procedures
FD3CORQA1A	Apply Basic Quality Assurance
FD3CORFS1A	Apply Basic Food Safety Practices
FD3CORCOM2A	Collect, Present and Apply Workplace Information
FD3COROHS2A	Implement Occupational Health & Safety
FD3CORQA2A	Implement the Quality System

FD3CORFS2A Implement the Food Safety Plan
FD3CORCOM3A Analyse and Convey Workplace Information

FD3COROHS3A Monitor the Implementation of Occupational Health & Safety

Unit Code **Units - SECOND YEAR**
FD3CORQA3A Monitor the Implementation of the Quality System

FD3CORFS3A Monitor the implementation of the Food Safety Plan

FD3FRBPD2A Produce Bread Dough
FD3FRBSM2A Scale and Mould Dough for Intermediate Proof

FD3FRBFM2A Conduct Final Mould and Final Proof

FD3FRBBB2A Bake Bread
FD3FRBPC2A Produce Sponge Cake and Cookie Batter

FD3FRBBC2A Bake Sponges, Cakes and Cookies

Unit Code **Units - THIRD YEAR**
FD3FRBPP2A Produce Pastry
FD3FPAPF2A Prepare Fillings
FD3FPAFF2A Form and Fill Pastry Products
FD3FPABP2A Bake Pastry Products
FD3FRBDC2A Decorate Cakes and Cookies
FD3FRBPY2A Produce Yeast-Raised Products

FD3FRBDB3A Diagnose and Respond to Product and Process Faults (Bread)

FD3FRBDC3A Diagnose and Respond to Product and Process Faults (Cakes and Cookies)

FD3FRBDP3A Diagnose and Respond to Product and Process Faults (Pastry)

FD3FRBPD3A Participate in Product Development Plan and Schedule Production
FD3FRBSP3A

Assessment

Competency based training assists apprentices to gain specific competencies that are required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

Horsham Campus

Kellie Uytdehaag

School of Manufacturing Services – Applied Science

Telephone (03) 5362 2721

Certificate IV in

Food Technology

National Course Code: **11893VIC**
State Code: **2406ASC**

General Information

Certificate IV in Food Technology provides an initial qualification in food technology for leading hands, supervisors, technical assistants (including quality control technicians), and food operators with relevant experience.

It offers people employed in the industry the opportunity to improve job satisfaction, gain a formal qualification related to work, and improve career opportunities. It also offers people seeking employment in the food technology industry a stronger base for entry.

Food technology deals with the storage, processing, preservation, packaging and distribution of foods. It is about how best to process and store foods safely and hygienically to increase their shelf-life and to retain their best qualities. The food industry employs 50,000 people in Victoria alone. It has the responsibility of providing safe, wholesome food to the Australian population.

Career Opportunities

Students who successfully complete the course can look forward to a rewarding career as a Food Technologist.

Food Technologists may work in a wide range of areas including research and development, quality control, laboratory testing, production supervision, technical services, marketing and management within the food manufacturing industry.

The food manufacturing industry consists of those places manufacturing food on a large scale, e.g. dairies, canneries, abattoirs, wineries, breweries, manufacturers of confectionery, baked goods, frozen foods, dehydrated foods, cereals, poultry and fish.

Further Studies/Pathways

This course leads directly into the 2nd year of the Bachelor of Applied Science (Food Technology) at the University of Ballarat Mt Helen Campus.

This course may also be combined with the following Management Studies:

- Certificate in Workplace Leadership
- Diploma of Management
- Bachelor of Management

Mode of Study and Location

This course is provided at the SMB Campus on a full-time basis for one year or part-time basis over two years.

Entry Requirements

Current Year 12 students - satisfactory completion of the VCE.

All other applicants will be considered for eligibility on the basis of previous life experience, work history and educational background.

Course Structure

This course consists of 528 Core Module Hours, 92 Generic (optional) Module Hours, and 90 Specialised Module Hours. That is a total of 710 Hours for the full course.

Course Content

Unit Code	Core Modules
VBK356	Physical Sciences for the Food Industry
VBK357	Introduction to Food Microbiology
VBK358	Food Chemistry 1
VPF164	Food Packaging
ABD569	OH&S in Food/Dairy Industry
NDS222	Word Processing – Introduction
BK360	Water and Waste Management for the Food Industry
AAA600	Science Industry Orientation

Unit Code	Quality Management I
VPF181	Intro to Quality Management
VPF195	Intro to Sensory Analysis
VPF293	Principles of Accreditation and Quality Tools
VPF196	Hygiene and Sanitation
VPF197	Principles of Hazards Analysis & Critical Control Points

Unit Code	Food Technology I
VPF198	Intro to Food Technology
VPF199	Principles of Food Spoilage
VPF200	Unit Operations
VPF201	Low Temperature Preservation
VPF207	High Temperature Preservation
VPF281	Fermentation/Concentration/Drying

Management Level 1

Choose equivalent of 40 hours from management electives

Unit Code	Optional Modules
<i>Choose a minimum of 92 hours</i>	
AAA601	Work Placement
VBK359	Food Chemistry 2
VPF167	Thermal Processing 1
VPF188	Process Control
AAA805	Nutrition
VBD382	Career Planning and Skills Assessment

Diploma of

Natural Resource Management

National Course Code: **5813**
State Code: **2509ACC**

General Information

The Diploma in Natural Resource Management is designed to train natural resource managers, technicians, technical officers or assistants. It involves a practical and theoretical knowledge of the conservation management of the State's natural resources in national parks, forests, waters, land protection, wildlife, pest plants and animals.

The course provides participants with a thorough grounding in environmental science with specialised skills and knowledge in at least two stream areas and a range of broad-based, technical and practical skills in field work through a practical, hands-on delivery approach.

The clients for the course are already employed or wishing to be employed in the following areas:

- forest/park/catchment management
- fisheries and wildlife management
- local government environment/recreation/conservation areas
- ecotourism
- environmental science research
- land protection/rehabilitation
- hydrography
- irrigation/ground water management
- interpretation/community environmental education
- sustainable agriculture, forestry, fisheries, mining activities

Career Opportunities

State Governments, local government, semi-government, private managers and other agencies have consistently employed graduates of this course.

The following employers have been active in developing and fully supporting this course as their major means of training technical staff:

- Department of Natural Resources and Environment
- Government and private Water Authorities
- Melbourne Parks and Waterways

Pathways for participants are two-fold:

1. Employment within the natural resource management industry at a technician/technical officer level; and
2. Progression to a degree level course in a related field.

Mode of Study and Location

This course is available at the SMB Campus and can be undertaken by two years of full-time study or some part-time study or a combination of both. Evening classes may be conducted, however the commencement of these is subject to enrolment quotas. Some units may also be available in a flexible delivery mode in 2000.

Flexible Delivery/Off-Campus Study

For further information contact the Off-campus Centre on (03) 5327 8224.

Entry Requirements

The course is available to people who have successfully completed Year 12 or equivalent, or who meet mature age entry criteria. Recommended studies at VCE include at least one VCE unit in each of English and general mathematics. People who have not completed these or similar studies or do not have equivalent skills may complete the following modules as a bridging program.

Introductory Mathematics	SCITECH AAA640
Workplace Communication	NCS001
Writing Skills for Work	NCS002

Course Structure

A total of 24 units (884 hours) are offered in the first year. The second year consists of 21 units in total (835 hours).

Course Content

Unit Code YEAR 1 Modules

Core/Available off-campus

ABD507	OH&S for the Natural Resource Management Industry
NCS006	Writing Workplace Documents
AAA630	Computer Fundamentals
NCS015	Presenting Reports
AAA632	Scientific Database Applications
AAA631	Scientific Spreadsheet Applications
VBB335	Orientation to the Natural Resource Management Industry
VBB336	Biology
AAA724	Ecological Principles
AAA725	Ecological Techniques
VBB338	Geology
VBB343	Natural Resource Mapping Systems
AAA727	Soil Science
VBB339	Animal Identification
AAA722	Plant Identification

1.12A	Wildfire Behaviour
CVV355	Introduction to Wildlife Management
NCS005	Dealing with Conflict
NCS009	Negotiation Skills

Core/Not Available off-campus

VBD193	Work Placement (2 weeks)
VBB348	Cultural Resource Management
AAA641	Lab Maths
VBB360	Recreation and Ecotourism Management
2.28	Wildfire Behaviour

Unit Code YEAR 2 Modules**Core/Available off-campus**

NCS010	Team Building Communications
NCS078	Dealing with Customers & Clients
NGMS113	Managing Finance - Setting and Achieving Budgets
VBB337	Environmental Law
VBB341	Resource Assessment
NGMS113	Resource Management Planning
VBB340	Coastal and Catchment Aquatic Management
AAA604	Practical Project
VBB356	Interpretation
VBB357	Pest Animal Management
VBB358	Pest Plant Management
VBB364	Weed Identification and Control

Core/Not Available off-campus

1.12B	Wildfire Suppression 1
2.29	Wildfire Suppression 2
VBEA92	Remote Sensing
VBF405	Habitat Management
VB205	Work Placement (6 weeks)
VBB344	Advanced Mapping Systems
VBB346	Catchment and Land Management
VBB349	Fire in Resource Management
VBB361	Recreation Facilities for Public Land Use

Total Nominal Hours**1719****Assessment****Competency Based Training**

Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace. This course has been designed to meet the particular skills and knowledge of this area. A student will be assessed by performing set tasks at specified standards under prescribed conditions.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further information contact:

SMB Campus - Ballarat

Peter Muller
School of Manufacturing Services – Applied Science
Telephone (03) 5327 8067

Reception

School of Manufacturing Services – Applied Science
Telephone (03) 5327 8064

Certificate IV in

Occupational Health and Safety

National Course Code: **1892**
 State Code: **QLCN0008**

General Information

The Certificate IV in Occupational Health and Safety Course was first conducted at the University of Ballarat in 1991. The course is designed for busy people who have experience in OH&S but who have not had the opportunity to undertake a tertiary course. It is conducted by VIOSH Australia. VIOSH Australia is a Centre for Teaching and Research in OH&S within the School of Science and Engineering, at the University of Ballarat.

The Certificate IV in Occupational Health and Safety Course is conducted twice a year. It consists of two weeks of on-campus learning followed by approximately 420 student hours of off-campus work. During the off-campus period course participants complete a series of assignments (referred to as "Learning Sets") while undertaking their normal work. This is an effective way of gaining a high quality, well-regarded qualification in OH&S.

The Certificate IV Course is conducted at the same time as the University's Graduate Diploma in Occupational Hazard Management, which provides Certificate IV Course participants with an opportunity to interact with OH&S professionals from all over Australia.

The benefits and strengths of the Certificate IV in Occupational Health and Safety Course include:

- An in-depth program, which provides more educational opportunities in occupational health and safety than other available short courses.
- Rigorous student performance assessment, which enhances the credibility of the course.
- Program design and delivery by occupational health and safety professionals, who are also recognised as national leaders in occupational health and safety training and education.
- An opportunity to mix, and form networks, with over 100 occupational health and safety professionals from throughout Australia and overseas.
- A program that supports candidates.

The prescribed course work provides multi-disciplinary frameworks on which to build health and safety knowledge and experience. The course does not

attempt to provide detailed coverage of all aspects of health and safety. Rather, the aim is to produce self-directed learners, who have the necessary skills to tackle new issues in health and safety, as and when they arise. Course participants will be given a basic understanding of a broad range of contemporary health and safety issues and related control strategies.

Career Opportunities

Students who successfully complete the Certificate IV in OH&S can look forward to a rewarding career in the occupational health and safety environment.

They may work in a wide range of industries including the manufacturing environment, defence force, automotive industries and the emergency services.

Further Studies/Pathways

After completion of a short "tertiary study skills" course, the Certificate IV in OH&S leads into the Graduate Certificate in Occupational Hazard Management at the University of Ballarat's Mt. Helen Campus.

Mode of Study and Location

This course is conducted twice a year (January and July) at the Mt. Helen Campus of the University of Ballarat. It is a part-time course, and can be completed in either 12 months or two years.

Entry Requirements

There are no admission requirements for this course. It is recommended, however, that course participants:

- Be in employment or have access to a workplace for completion of assessable tasks;
- Have a basic understanding of science;
- Have a basic understanding of arithmetic; and
- Have computing and internet skills.

Course Structure

The course involves students attending a two-week block of face to face, full time teaching and learning. Each week long block equals 40 hours of student learning time, representing a total of 80 hours of student learning time for the two blocks.

Students can then complete the remaining 420 course hours of self-directed learning over twelve months or two years. It is also possible for students to complete the course over six months.

For students to complete the course in six months, they need to study for an average of 17.5 hours per week for each of 24 weeks. For students to complete the course in twelve months, they need to study for an average of 8.5 hours per week for each of 50 weeks. The course is offered in both January and July each year.

Course Content

The learning outcomes for this course are achieved through two units of study and the completion of eight assessable learning sets covering the following topics:

OHS Management

OH&S History and Law
OH&S Management Systems
Workplace Relations

Control of Hazards

Introduction to Control of Hazards
Fire Safety
Manual Handling and Workstation Design
Chemical Hazards
Noise, Electricity and Machinery Hazards

Assessment

For each Learning Set students may be required to:

- Undertake workplace tasks
- Answer topic questions
- Answer reflective questions
- Collect information
- Compile a reference list

A more comprehensive Learning and Assessment document is provided to students at the commencement of the course.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

Mt. Helen Campus - Ballarat

Dianne Elshaug
VIOSH Australia
Telephone (03) 5327 9160
Fax (03) 5327 9151
Email viosh@ballarat.edu.au

Open Learning Science Program

National Course Code: **2290LZB**

General Information

The Open Learning Science program at the SMB Campus offers study in a variety of science topics, which help bridge the gap from where you are now, to where you wish to go in the science field.

Open Learning Science (OLS) caters for the needs of adults of any age who wish to resume study with a view to pursuing a science related course at the SMB Campus, or elsewhere.

The program offers study in a number of introductory topics that, on successful completion, will provide the necessary academic pre-requisite for entry into science courses at the SMB Campus.

These courses include:

- Certificate IV and Diploma in Fire Technology (Off Campus)
- Certificate IV and Diploma in Food Technology
- Diploma of Conservation and Land Management (Natural Resource Management)
- Diploma of Tourism (Ecotourism)
- Diploma of Building Design and Drafting

Students may also enrol in OLS and select individual science topics to satisfy personal interests or help achieve some personal goal.

Students already enrolled in an existing course at the SMB Campus may enrol in OLS as a means of obtaining additional help from teaching staff in science subjects related to their particular course of study.

Students with a specific interest in science or those seeking to fulfil a personal goal can undertake a selection of any number or combination of topics from the complete list.

Materials for each unit of study must be purchased by the student as required.

Career Opportunities

Career opportunities include those in industries associated with the SMB campus courses into which Open Learning Science bridges – Fire Technology, Food Technology, Conservation and Land

Management, Ecotourism and Building Design and Drafting.

Mode of Study and Location

OLS classes will be offered during the evening.

Entry Requirements

There are no entry requirements.

Course Structure

Your attendance and length of stay is flexible depending on your needs, and you can commence classes at any stage throughout the year. Classes are designed so you can work through set units at your own pace, and there is no constraint on when to finish your studies.

Course Content

Students enrolling in the Open Learning Science program select, in consultation with the teacher, introductory science topics chosen from the following areas of study (other topics are also available).

- Basic Mathematics for Science
- Biology, including
 - The living world
 - Cells
 - The maintenance of life
 - Plant identification
 - Food production and consumption
 - Diversity
 - Environment
 - Anatomy and medical terminology
- Chemistry
- Physics, including
 - Quantities
 - Units
 - Measurements
 - Mechanical ideas
 - Force and motion
 - Energy, work and power
- Geology

Many of these topic areas may be studied at different levels.

Assessment

The module is not assessed as a whole, but individual topics may be assessed by assignments or tests in order to provide feedback to students. (Specific assessment details will accompany each unit). The assessment is attempted when the student considers the topic content has been mastered.

If the student does not reach a satisfactory level of achievement at the first attempt, reassessment is available after further work.

NOTE: Completion of any set of topics does not guarantee direct entry into science courses at the SMB campus; normal application procedures must be followed.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

SMB Campus - Ballarat

Bruce Marshall

School of Manufacturing Services – Applied Science

Telephone (03) 5327 8219

Certificate IV in

Residential Drafting

National Course Code: **40357SA**

General Information

Building design and drafting is a responsible, varied and interesting profession. It involves working in conjunction with a variety of people in the built environment such as planners, architects, interior designers, landscape architects, builders and other allied professionals in the building industry.

The draftsperson/technician who works in the architectural field prepares drawings used in the design and construction of buildings including their internal and external environments. In order to carry out their work responsibly and efficiently, an understanding and deep appreciation of a wide range of communication skills is required including:

- traditional and computer aided drawing methods;
- report writing; and
- the ability to describe the process and assembly of design components.

The course equips the student with the technical knowledge of both traditional and new building materials, their manufacture and appropriate use.

Career Opportunities

Students who successfully complete the course can look forward to a rewarding career in architectural and building practices; drafting services and local government.

Graduates of this course are encouraged to apply for entry into a Diploma of Building Design and Technology.

Mode of Study and Location

This course is offered at the SMB Campus on a full-time basis over one year. Some modules will be offered each year for those students who prefer to undertake the course on a part-time basis.

FLEXIBLE DELIVERY/OFF-CAMPUS STUDY

The units marked with an asterisk (*) on this course leaflet are available in an off-campus study mode. For further information contact the Off-campus Centre on (03) 5327 8224 or the course co-ordinator listed overleaf.

Entry Requirements

Successful completion of VCE including General Mathematics or Mathematical Methods (Units 1 & 2)
All other applicants will be considered for eligibility on the basis of previous life experience, work history and educational background.

NOTE: A bridging course in mathematics is available for those who require the relevant training.

Course Structure

In the first year a total of 13 units are offered to full time students, which totals 780 hours.

Course Content

YEAR 1	Certificate IV in Residential Drafting
BDD411	*Residential Construction Technology
BDD421	Residential Materials
BDD431	*Residential Working Drawings 1
BDD441	*CAD 2D
BDD451	*Sketch Presentation
BDD461	*Residential Design 1
BDD481	*Drafting Office Administration
BDD538	Site Survey and Drawing
BDD432	*Residential Working Drawings 2
BDD452	*Projected Presentation
BDD462	*Residential Design 2
BDD491	Residential Documentation
BDDE02	*Timber Frame Design

Total Nominal Hours **780**

Assessment

Competency based training is concerned with assisting people to gain specific competencies which are required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area. A student will be assessed by performing set tasks at specified standards, under prescribed conditions.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

SMB Campus - Ballarat

Ian Clift

School of Manufacturing Services – Applied Science

Telephone (03) 5327 8156

Diploma of

Tourism (Ecotourism)

National Course Code: **2511AOB**

This course is subject to extension of the University of Ballarat's Scope of Registration.

General Information

Ecotourism is nature-based tourism, involving education of the natural environment to ensure that activities are ecologically supportive.

This Diploma is a joint initiative of William Angliss Institute of TAFE and the SMB Campus of the University of Ballarat to provide training for people seeking employment in the field. The Diploma aims to develop business, communication and scientific skills which will enable people to work in a range of occupations in this field, e.g. interpretive tour guiding, specialist tour operations, parks and wildlife areas and government departments. The Diploma is also suitable for people planning to establishing a small business in Ecotourism.

Career Opportunities

Ecotourism is a new concept in Australian tourism. The *National Ecotourism Strategy* has identified the necessity to develop a trained workforce capable of providing tourists with an outdoor nature-based experience with minimal environmental impact. Industry groups involved in Ecotourism have endorsed this training program for Adventure tour operators, tour guides, park rangers and special interest tour operators.

The Diploma is recognised by the majority of tourism industry bodies, and government such as Parks Victoria.

Mode of Study and Location

The course is conducted at the SMB Campus (1 x 5 week block per semester) and at William Angliss Institute of TAFE on both a full-time (two years) and part-time basis. Some modules will only be offered as a block release mode. Each campus offers specialised modules in tourism and natural resource management.

Flexible Delivery/Off Campus Study

The units marked with an asterisk (*) on this course leaflet are available in an off-campus study mode. (A materials fee is payable per unit). For further information contact the Off-campus Centre on (03) 5327 8224.

Entry Requirements

Satisfactory completion of the VCE; OR mature age entry.

Course Structure

This Diploma shares a mix of learning experiences between the two Institutions. Emphasis is on experience in bush settings. Outdoor components may include camping, bushwalking and canoeing. The modules delivered at SMB are conducted on a block release basis, requiring students to be located in Ballarat at various times of the year. Students can exit the course after first year, receiving Certificate II in Tour Guiding.

Course Content

Unit Code Modules YEAR 1

ITR1	Introduction to Travel & Tourism
ITR3	Interpersonal Skills
ITR4	Customer Relations
AAA850	Map Reading & Bushcraft
VBB335	Orientation to the Natural Resource Industry
ABD507	OHS for the Natural Resource Management Industry *
ITR7/12	Tourism Operations - Attractions
ITR13A	Computer Operations*
ITR13B	Keyboard and Word Processing
BTR23	Destination and Products - Regional Australia
GSM32	Job Seeking*
GSM10	Cross Cultural Communication
GSM26	Workteam Communication*
BTR12	Business Relations
GSM22	Presenting Reports*
GSM1	Basic Calculations
BTR3	Destination and Products - Australia
GSM3	Cultural Awareness
BRT1	Site Presentation Techniques
BTR18-20	Tour Guiding Procedures
BRT21	Tour Commentaries
BRT22	Visitor Information
AAA722	Plant Identification*
AAA724	Ecological Principles*
NRM022	Interpretation
ATR2A	Tourism Operations Co-ordination Attractions
GSM18	Tourism Marketing Principles
GSM23	Computer Application Programs
BRR2	Arrival and Departure Transfers
ATR13	Conduct Adventure Tours
FTG07A	Research and share general information on Aboriginal and Torres Strait Islander Culture
FTGO8A	Interpret aspects of local Aboriginal and Torres Strait Islander Culture

Unit Code Modules YEAR 2

VBB356	Interpretation
GSM15	First Aid Level 2
ATR1	One on One Job Instruction
ATR8	Tour Co-ordination
AAA725	Ecological Techniques*
VBB339	Animal Identification*
GSM20	Travel and Tourism Law
STR1	Staff Supervision
STR2	Staff Training
STR3	Producing Marketing Materials
STR4	Public and Community Relations
STR8/9	Tourism Sales and Promotion
GSM19	Tourism Accounting
VBB360	Recreation and Ecotourism Management
STR10	Tourism Marketing Applications
CMTR2A	Tourism Operations Management-Tourist Attractions
CMTR3	Product Development Co-ordination
CMTR4	Human Resources Co-ordination
CMTR5	Financial Administration
CMTR6	Business Administration
VBB337	Environmental Law *
VBB361	Recreation Facilities for Public Land

Total Nominal Hours **1495**

Please note that some modules, titles and/or content may change.

Assessment**Competency Based Training**

Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace. This course has been designed to meet the particular skills and knowledge of this area. A student will be assessed by performing set tasks at specified standards under prescribed conditions.

Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

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All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

Course Enquiries

For further course information contact:

SMB Campus - Ballarat

Peter Muller
School of Manufacturing Services – Applied Science
Telephone (03) 5327 8067

Kerrie Obst
William Angliss Institute of TAFE
Telephone (03) 9606 2580