The main campus is located at 900 Dandenong Road and is adjacent to the Caulfield Railway Station which is on the Dandenong and Frankston lines. It is also on the No. 3 tram line from Swanston Street in the city (alight at the Caulfield East shopping centre). Private bus lines also serve the Institute (consult transport map).

CAULFIELD RAILWAY STATION

PHILIP LAW BUILDING

FRANK GROVES BUILDING

K. H. BOYKETT BUILDING

SU

RAILWAY AVENUE

PRINCES AVENUE

QUEENS AVENUE

26 Railway Avenue. Art & Design.

878
880
882
888

878 880 882

1878 880 882

R. J. Dorey Mall connecting A, B, C, & F blocks on level 2.
3. Technical and Further Education
Caulfield Institute of Technology

Main campus: 900 Dandenong Road, Caulfield East 3145
TAFE divisions also at 1056 and 1068-1070 Dandenong Road, and at 4 Egan Street, Carnegie 3163
Postal address: PO Box 197, Caulfield East 3145
Telephone number: (03) 573 2222

ISNN 0156-7772
Information as at June 1981
Typesetting and Printing by Hedges & Bell, Maryborough, Vic.
PREFACE

The Caulfield Institute of Technology has three publications for the guidance of its more than 8,000 full-time and part-time students. Of these, volume one, the Student Manual, is required reading by all who enrol at the Institute, part-time or full-time, in any of the Advanced Education schools or in any of the schools of the Technical and Further Education (TAFE) Division. That volume contains all the information pertinent and essential to a student’s academic activities and progress at the Institute.

Course information is found in two companion volumes, the CIT Advanced Education Handbook 1982 (priced at $5 and available at the Student Administration Office) and the CIT Technical and Further Education Handbook 1982. These provide details of all courses offered by CIT, together with synopses of every subject taught, including bibliographies on each. These handbooks must be consulted when planning courses. They also serve as useful guides during the progress of studies.
INTRODUCTION

The Caulfield Institute of Technology (CIT) celebrates 60 years in 1982 — a period which has seen its development from a technical school of some 250 students and 14 instructors in 1922, to an institution with an enrolment of more than 8000 students and a proportionately large staff in its two divisions, Advanced Education, and Technical and Further Education (TAFE).

The Advanced Education Division has six schools: the Schools of Applied Science, Art and Design, Computing and Information Systems, Engineering, Social and Behavioural Studies, and the David Syme Business School. Information on courses conducted by the Advanced Education Division is contained in volume 2 of the CIT handbooks.

The Technical and Further Education (TAFE) Division consists of the Schools of Apprentice and Skill Training, Community and Access Education, Foundation and Preparatory Studies, and Industrial and Commercial Studies.

CIT is mainly housed in modern multi-storeyed buildings at 900 Dandenong Road, East Caulfield, bordered by Dandenong Road, Railway Avenue and Queens Avenue. It also spreads across Queens Avenue into some houses which provide more informal accommodation for teaching, and some administrative offices.

The nearest railway station is Caulfield served by trains on the Frankston and Dandenong lines. Access is also provided by trams on Route 3 to East Malvern and by private buses plying between St. Kilda and Chadstone.

Additional teaching and administrative accommodation for some TAFE schools is provided at 1056, 1060 and 1068 Dandenong Road, and at 4 Egan Street, Carnegie, served also by trains on the Dandenong line.

The postal address and telephone number for both the main campus and other locations are:

PO Box 197
Caulfield East 3145
Telephone: (03) 573 2222

The plan facing the title page of this handbook shows the locations of the various buildings, schools, services and administrative units on the main campus.

THE TAFE DIVISION

CIT's TAFE Division provides courses in five streams:
- middle level programs designed to provide immediate support for higher professional staff
- apprenticeship and technician courses
- accredited courses for government and industry
- access programs preparing students for admission to other vocational courses and further study
- adult short courses for recreation, leisure and self-enrichment.

The School of Apprentice and Skill Training is located at the Carnegie campus where apprenticeship studies in boilermaking and steel construction; carpentry and joinery; and fitting and machining are conducted.
Courses are also offered for Technician Certificates in Building (Building Foreman), Building (Building Inspector); Mechanical (Mechanical Drafting and Thermal Plant); and Production; and the Certificate of Qualification — Municipal Building Inspector. Inquiries to 573 2529.

The School of Community and Access Education conducts courses on campus and in neighbourhood centres, and mainly of a part-time nature.

Among courses now offered are: Preparatory Program for the Handicapped; Bridging Police Studies; Way-In (an introductory program to HSC and TOP); Migrant English; and the Education Program for Unemployed Youth (EPUY).

The School also offers Women’s Access Programs, Compensatory Education, Adult Literacy Programs, Adult Literacy Tutor Programs, Study Skills Programs, and a range of adult short courses. Special courses are designed and conducted in the School’s BIG Program. Inquiries 573 2546.

The School of Foundation and Preparatory Studies offers full-time and part-time courses in the Tertiary Orientation Program (TOP) in Applied Science; Engineering; Art; Business; General Studies; and EDP.

The School conducts HSC courses for mature-aged and disadvantaged students. Inquiries to 573 2422.

The School of Industrial and Commercial Studies conducts courses for the Certificates of Applied Science in Ceramics, and in Construction Materials and Practices; the Certificate of Technology in Electronics, Mechanical Design Drafting, (Electrical and Mechanical), the Certificate of Police Studies and the Certificate of EDP (Operating and Coding).

Courses are also offered in Business Studies Office Training; Ceramic Mouldmaking; Ceramic Casting and Glazing Techniques; and a Trade Technical Orientation Program. Inquiries to 573-2052.

Short Courses

All schools at CIT run a variety of short courses to enable people to update their knowledge in the area of employment or increase their career opportunities. The School of Community and Access Education has a department devoted to creating short courses for adults in a wide range of topics.

The information contained in this handbook is accurate as at June 1981. Inevitably, changes will occur after publication so you should confirm details, such as references to required textbooks. You should also note that the Council reserves the right to amend, postpone, or withdraw any course or subject being conducted or offered by CIT.

Student Manual

This handbook contains course details and subject synopses of courses offered by the Technical and Further Education (TAFE) Division of CIT. The user is referred to the CIT Student Manual 1982 for information about enrolment, financial assistance available to students, scholarships and the regulations governing the relationship between CIT and its students. You
should read the regulations carefully because they contain much information that can be to your benefit. The Manual is issued free through the Student Administration office.

Lists of members of staff appear at the end of this handbook.

For more information, you should contact the Administrative Officer of the school responsible for your course.

Students seeking administrative assistance should inquire at the Student Administration office on Level 1 of the K. H. Boykett building.
Contents

Preface v

Introduction vii

Alphabetical Guide to Courses xv

School of Apprentice & Skill Training 1

Department of Building Studies 1
  Carpentry and Joinery Apprenticeship 1
  Technician Courses —
    Building (Building Inspector) 2
    Building (Building Foreman) 3
  Certificate of Qualification as a
    Municipal Building Inspector/Surveyor 4
  Building Construction 9
  Crane Operators 10
  Rigger Class 3 and Class 4 10
  Scaffolding 1 and 2 10

Department of Engineering Metal Trades 10
  Fitting and Machining Apprenticeship 10
  Technician Certificates
    Mechanical (Mechanical Drafting and
    Thermal Plant) 16
  Production 16
  Elementary Fitting and Machining 20
  Toolmaking — Year 1 and 2 21

Department of Metal Fabrication and Welding 21
  Boilermaking and Steel Construction Apprenticeship 21
  Electric Arc Welding 23
  Oxy-Acetylene Welding 24
  Welding Special 25

School of Community and Access Education 27

Department of Access and Bridging Programs
  Education Program for Unemployed Youth (EPUY) 27
  Womens Access Programs 27
    — Tertiary Orientation Program 27
    — Community Based Skills and Interest Groups 27
  Girls’ Access Link Program 28
  Programs for the Disabled 28
    — Pre-Vocational Skills Development 28
    — Link Programs for Students from Special Schools 28
— Further Education Program for Adults attending Day Training Centres 28
Way-In (Part-Time) 28
Transition Education Programs 30
— Metal Processing 30
— Retail/Clerical 31
— Intensive English as a Second Language 31
— Program for Migrant Youth 31
Bridging Programs for Blue Collar Workers 31
Programs for Older Adults 31

Department of Compensatory Education 31
Programs for Migrants 31
— Migrant English 31
— Study Skills for Migrants 32
— TOP Alternative Migrant English Classes 32
Programs for Native Born Australians 32
(a) Basic Education 32
(b) Adult Literacy 32
(c) Spoken English 32
(d) Literacy and Basic Numeracy Skills 33
Programs for Enrolled Students 33
(a) Apprentice Programs 33
(b) Compensatory Education for Year 12 Students 33

Preparatory Police Studies 33
Short Course and Industry Programs 33
(a) Business and General Studies Program 33
(b) Language Program 34
(c) Health and Human Relations Program 34
(d) Creative Hobbies and Skills Program 34
(e) Travel Program 35

Business, Industry and Government Courses 45

School of Foundation and Preparatory Studies
Tertiary Orientation Programs (TOP) 47
— Applied Science 47
— Art 48
— Business Studies 48
— Electronic Data Processing 49
— Engineering 49
— General Studies 49
— Secretarial Studies 50
Higher School Certificate (HSC) 61
Art Studio Practice 62
Basic Relating Course 62
Voluntary Youth Leadership 63
Way-In (Full-Time) 63
Foundations of Professional Writing 64

School of Industrial and Commercial Studies 67
Basic Training for Private Agents, Process Servers and Commercial Agents 67
Department of Commerce 68
Business Studies — Office Training 68
Certificate in EDP (Operating and Coading) 71

Department of Materials Technology 73
Certificate of Applied Science (Ceramics) 73
Certificate of Applied Science (Construction Materials and Practice) 75
Ceramic Casting and Glazing Techniques 87
Ceramic Mouldmaking 87
Certificate of Police Studies 87
Trade Technical Orientation Program 89

Department of Mechanical Engineering 93
Certificate of Technology (Mechanical) Design Drafting 93
Certificate of Technology (Mechanical and Mechanical Design Drafting) 93
Certificate of Technology (Mechanical) 95

Department of Electrical/Electronics 106
Certificate of Technology (Electrical and Electronic) 106
Certificate of Technology (Electrical) 107
Certificate of Technology (Electronics) 108

Staff Lists
CIT Council 121
CIT Administration 122
Student Union Council 131
TAFE Division 132
ALPHABETICAL GUIDE TO TAFE COURSES

**Adult Courses**
- Adult Literacy Programs 32
- Older Adults 31
- Short Course and Industry Programs 33

**Apprenticeship**
- Boilermaker and Steel Construction 21
- Carpentry and Joinery 1
- Fitting and Machining 10
- Literacy and Numeracy classes for enrolled apprentices 33

**Art**
- Art Studio Practice 62
- Tertiary Orientation Program — Art 48

**Bridging Programs**
- Blue Collar Workers 31
- Way-In Programs (Full-Time) 63
- Way-In Programs (Part-Time) 28

**Building**
- Apprenticeship — Carpentry and Joinery 1
- Building Construction 9
- Certificate of Qualification as a Municipal Building Inspector/Surveyor 4
- Crane Operators 10
- Rigger Class 3 and Class 4 10
- Scaffolding 1 and 2 10
- Technician Certificate — Building (Foreman) 3
- Technician Certificate — Building (Inspector) 2

**Business**
- Basic Retailing Course 62
- Business, Industry and Government Courses 45
- Business Studies — Office Training 68
- Certificate in Electronic Data Processing 71
- Tertiary Orientation Program — Business 48
- Tertiary Orientation Program — Electronic Data Processing 49

**Ceramics**
- Ceramic Casting and Glazing Techniques 87
- Ceramic Mouldmaking 87
- Certificate of Applied Science (Ceramics) 73

**Construction**
- Certificate of Applied Science (Construction Materials and Practice) 75
Disabled
  Further Education Program for Adults Attending Day Training Centres 28
  Link Program for Students from Special Schools 28
  Prevocational Skills Development 28

Electronic Data Processing
  Certificate in Electronic Data Processing (Operating and Coding) 71
  Tertiary Orientation Program — Electronic Data Processing 49

Electrical/Electronics
  Certificate of Technology — Electrical 107
  Certificate of Technology — Electrical and Electronic 106
  Certificate of Technology — Electronics 108

Engineering Metal Trades
  Apprenticeship — Fitting and Machining 10
  Elementary Fitting and Machining 20
  Technician Certificate — Mechanical (Mechanical Drafting and Thermal Plant) 16
  Technician Certificate — Production 16
  Toolmaking — 1 and 2 21

Girls
  Girls Access Link Programs 28
  Higher School Certificate 61

Industry
  See Short Courses and Industry Programs 33

Literacy
  Adult Literacy 32
  Basic Education Program 32
  Foundations of Professional Writing 64
  Literacy for Apprentices 33
  Spoken English 32

Mechanical
  Certificate of Technology (Mechanical) 95
  Certificate of Technology (Mechanical Design Drafting) 93
  Certificate of Technology (Mechanical and Mechanical Design Drafting) 93

Migrants
  Intensive English as a Second Language Program for Migrant Youth 31
  Migrant English 31
  Study Skills for Migrants 32
  TOP Alternative Migrant English Classes 32
Numeracy
Numeracy and Basic Mathematics Skills 33
Numeracy for Apprentices 33

Older Adults
Programs for Older Adults 31

Preparatory Programs
Compensatory Education for Year 12 Students 33
Preparatory Police Studies 33
Way-In 63

Police Studies
Certificate of Police Studies 87
Preparatory Police Studies 33

School-To-Work Transition Programs
(See Transition Programs) 30

Short Courses 33

Tertiary Orientation Programs
TOP — Applied Science 47
TOP — Art 48
TOP — Business 48
TOP — Electronic Data Processing 49
TOP — Engineering 49
TOP — General Studies 49
TOP — Secretarial 50

Trade Technical Orientation Program (TTOP) 89

Transition Programs
Metal Processing 30
Retail/Clerical 31
Intensive English as a Second Language 31
Program for Migrant Youth 31

Unemployed
Education Program for Unemployed Youth 27
Voluntary Youth Leadership Program 63

Welding
Electric Arc 23
Oxy-Acetylene 24
Welding Special 25

Women
Women’s Access Program 27
Community Based Skills and Interest Groups 27
Womens’ Access Tertiary Orientation Programs 27

Miscellaneous
Way-In 63
SCHOOL OF APPRENTICE AND SKILL TRAINING

The School of Apprentice and Skill Training is situated at 1056, 1060 and 1068 Dandenong Road and 4 Egan Street, Carnegie, approximately two kilometres from the main CIT campus.

The school has three departments:
- Building Studies;
- Engineering Metal Trades; and
- Metal Fabrication and Welding

Department of Building Studies
CARPENTRY AND JOINERY — APPRENTICESHIP

Course Code: AC

Under the Modular Training Scheme, apprentices are required to attend school for 320 hours per year for three years, covering the 16 course modules in the first two years and in the third year an additional eight modules, chosen from a wide range of alternatives.

Schooling is carried out over 8 one week blocks of 40 hours per block per year.

Basic modules

First year

Building Module 1 BM0100
Simple basic structures, basic tool skills.

Building Module 2 BM0200
Simple timber wall framing.

Building Module 3 BM0300
Simple timber roofing — skillion and gable.

Building Module 4 BM0400
Simple doors — ledged and braced — flywire.

Building Module 5 BM0500
Simple window — casement frame and sash.

Building Module 6 BM0600
Timber fencing and gates.

Building Module 7 BM0700
Timber villa construction — sub-floor structure to include set out of wall plates.

Building Module 8 BM0800
Timber villa construction — wall framing.
Second Year

Building Module 9 BM0900
Timber villa construction — ceiling and gable roof framing.

Building Module 10 BM1000
Timber villa construction — simple hip roofing.

Building Module 11 BM1100
Doors and door frames (domestic).

Building Module 12 BM1200
Window joinery — double hung sashes with patented balances — rectangular louvre.

Building Module 13 BM1300
Window joinery — double hung sashes in box frames.

Building Module 14 BM1400
Simple stairs — timber and concrete construction.

Building Module 15 BM1500
(a) Brick veneer construction.
(b) Hand saw sharpening.

Building Module 16 BM1600
Hip and valley roofing.

Third Year
Alternative Modules:

BM1700-BM2800
A final eight modules must be completed in addition to the basic 16 modules for trade schooling to be completed as required by the Industrial Training Commission.

A selection from 12 alternate modules is available. On completion of the basic modules, selection of the final eight modules will be made to suit the student depending upon his chosen stream.

TECHNICIAN COURSES
BUILDING (Building Foreman) Course Code TB

Aim of Course
This is primarily a job-oriented terminal course. It is designed to provide adequate training which will enable members of approved building trades to accept responsibility as a building foreman, initially on smaller projects and subsequently on larger ones.

Entrance Standards
The successful completion of the following Year 10 subjects: English, mathematics, science; or approved equivalent qualifications, provided that any person who is otherwise eligible may be admitted to a course if con-
sidered by the teaching institution to be sufficiently mature and experienced to undertake the course successfully.

In addition an applicant must be serving, or have served an apprenticeship (with proficiency) in one of the approved trades, or have at least ten years acceptable experience in one of the approved building trades.

On completion of the course and with appropriate experience a Technician Certificate — Building Foreman will be awarded.

**Sample Course**

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL5800</td>
<td>Building Administration and Supervision</td>
<td>2</td>
</tr>
<tr>
<td>BP2200</td>
<td>Building Construction 1A</td>
<td>2</td>
</tr>
<tr>
<td>BP2300</td>
<td>Building Construction 1B</td>
<td>2</td>
</tr>
<tr>
<td>BP3200</td>
<td>Building Construction 2A</td>
<td>2</td>
</tr>
<tr>
<td>BP3300</td>
<td>Building Construction 2B</td>
<td>2</td>
</tr>
<tr>
<td>BC1400</td>
<td>Building Maths (T)</td>
<td>2</td>
</tr>
<tr>
<td>BS2100</td>
<td>Building Science (T)</td>
<td>2</td>
</tr>
<tr>
<td>BY4100</td>
<td>Building Surveying (T)</td>
<td>4</td>
</tr>
<tr>
<td>BE1100</td>
<td>English (Form 5)</td>
<td>2</td>
</tr>
<tr>
<td>BY5100</td>
<td>Builders Quantities or other approved elective</td>
<td>2</td>
</tr>
<tr>
<td>XC1100</td>
<td>Communications and Report Writing</td>
<td>2</td>
</tr>
</tbody>
</table>

**BUILDING (Building Inspector)**

*Course Code: TE*

**Aim of Course**

This is primarily a job-orientated terminal course.

It is designed to provide adequate training which will enable members of approved building trades to accept responsibility as a building inspector, initially on smaller projects and subsequently on larger ones.

**Entrance Standard**

Completion of Year 10 standard of education, and engagement in an appropriate vocational program.

On completion of the course and with appropriate experience a Technician Certificate — Building Inspector will be awarded.

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL5800</td>
<td>Building Administration and Supervision</td>
<td>2</td>
</tr>
<tr>
<td>BP2200</td>
<td>Building Construction 1A</td>
<td>2</td>
</tr>
<tr>
<td>BP2300</td>
<td>Building Construction 1B</td>
<td>2</td>
</tr>
<tr>
<td>BP3200</td>
<td>Building Construction 2A</td>
<td>2</td>
</tr>
<tr>
<td>BP3300</td>
<td>Building Construction 2B</td>
<td>2</td>
</tr>
<tr>
<td>BP4200</td>
<td>Building Construction 3A</td>
<td>2</td>
</tr>
<tr>
<td>BP4300</td>
<td>Building Construction 3B</td>
<td>2</td>
</tr>
<tr>
<td>BC1400</td>
<td>Building Maths (T)</td>
<td>2</td>
</tr>
<tr>
<td>BL4800</td>
<td>Practical Inspection (Building)</td>
<td>2</td>
</tr>
</tbody>
</table>
MUNICIPAL BUILDING INSPECTOR/SURVEYOR

Course Code: TC

On completion of the course and with appropriate experience, the Municipal Building Surveyor Board may award a Certificate of Qualification as a Municipal Building Inspector/Surveyor.

**Entrance Standard**

**Building Inspector:**
A standard of general education equivalent to passes in six subjects (including English, mathematics and science) prescribed for Year 10.

**Building Surveyor:**
To have reached a standard of general education equivalent to English, physics, chemistry, mathematics I and II as prescribed for Victorian school leaving examination.

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL4200</td>
<td>Applied Geomechanics</td>
<td>2</td>
</tr>
<tr>
<td>BL4700</td>
<td>Applied Mechanics 1 (Building)</td>
<td>2</td>
</tr>
<tr>
<td>*BL5800</td>
<td>Building Administration and Supervision</td>
<td>2</td>
</tr>
<tr>
<td>*BP2200</td>
<td>Building Construction 1A</td>
<td>2</td>
</tr>
<tr>
<td>*BP2300</td>
<td>Building Construction 1B</td>
<td>2</td>
</tr>
<tr>
<td>*BP3200</td>
<td>Building Construction 2A</td>
<td>2</td>
</tr>
<tr>
<td>*BP3300</td>
<td>Building Construction 2B</td>
<td>2</td>
</tr>
<tr>
<td>BP3400</td>
<td>Building Construction 2C</td>
<td>3</td>
</tr>
<tr>
<td>BP4200</td>
<td>Building Construction 3A</td>
<td>2</td>
</tr>
<tr>
<td>BP4300</td>
<td>Building Construction 3B</td>
<td>2</td>
</tr>
<tr>
<td>BP4400</td>
<td>Building Construction 3C</td>
<td>3</td>
</tr>
<tr>
<td>BS2100</td>
<td>Building Science (T)</td>
<td>2</td>
</tr>
<tr>
<td>YG0200</td>
<td>English (HSC Expression)</td>
<td>4 day/3 evening</td>
</tr>
<tr>
<td>*BL4800</td>
<td>Practical Inspection (Building)</td>
<td>2</td>
</tr>
<tr>
<td>BL6700</td>
<td>Powers and Duties of a Building Surveyor</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>— Part 2</td>
<td></td>
</tr>
<tr>
<td>*BL3900</td>
<td>Scaffolding Inspection 1A</td>
<td>1</td>
</tr>
<tr>
<td>*BL4900</td>
<td>Scaffolding Inspection 1B</td>
<td>2</td>
</tr>
<tr>
<td>*BL5700</td>
<td>Statutory Control of Buildings</td>
<td>2</td>
</tr>
</tbody>
</table>

**Note:** Some subjects required for Municipal Building Surveyor qualification may not be available.

* Municipal Building Inspectors subjects only.
SUBJECT SYNOPSES

Applied Geomechanics BL4200
A course of two hours per week for one year.
Prerequisites: Nil.
Syllabus: To provide a building surveyor with sufficient skill to assess the suitability (or otherwise) of foundations to carry loads imposed thereon by the footings.
Assessment: One three hour external examination.
References: As advised.

Applied Mechanics 1 (Building) BL4700
A course of two hours per week for one year.
Prerequisite: Form 5 Mathematics or equivalent is considered the minimum level necessary to attempt this subject.
Syllabus: To impart to students an appreciation of the mechanical properties of structural material under load. Consideration of simple structure eg. beams columns trusses etc. is included.
Assessment: One three hour external examination.
References: As advised.

Builders Quantities BY5100
A course of two hours per week for one year.
Prerequisites: Building Construction 1 & 2.
Assessment: Internal assessment.
References: To be announced.

Building Administration and Supervision BL5800
A course of two hours per week for one year.
Prerequisites: Nil.
Syllabus: Administrative procedures and principles as applied to building. General reference to building organisation in architects, builders and municipal officers.
Assessment: Final three hour examination 60 per cent. Class assignments 40 per cent.
References: To be announced.

Building Construction 1A BP2200
A course of two hours per week for one year.
Prerequisites: Nil.
Syllabus: Basic principles of structure. Timber technology, domestic
building construction including timber framing, brickwork, masonry, foundations, footings, roof plumbing, joinery, internal fittings, services, plastering, painting, simple concrete work.

**Assessment:** Final three-hour examination.

**References:** To be announced.

**Building Construction 1B BP2300**

A course of two hours per week for one year.

**Prerequisites:** Nil.

**Syllabus:** A folio of drawings covering eight selected topics appropriate to the grade, to be submitted for examination at the end of the year. Drawings will be solutions of given problems.

**Assessment:** Assessment of drawings.

**References:** To be announced.

**Building Construction 2A BP3200**

A course of two hours per week for one year.

**Prerequisite:** Building Construction 1A.


**Assessment:** Final three-hour examination.

**References:** To be announced.

**Building Construction 2B BP3300**

A course of two hours per week for one year.

**Prerequisite:** Building Construction 1B.

**Syllabus:** A folio of drawings covering eight selected topics, appropriate to the grade, to be submitted at the end of the year for examination. Drawings will be solutions of given problems.

**Assessment:** Assessment of drawings.

**References:** To be announced.

**Building Construction 2C BP3400**

A course of three hours per week for one year.

**Prerequisite:** Applied Mechanics 1 (or equivalent) and Building Construction 1A and 1B should be completed by students starting this subject.

**Syllabus:** To extend student understanding of applied mechanics to the consideration of the behaviour of structural components.

**Assessment:** One three hour examination.

**References:** As advised.
Building Construction 3A BP4200
A course of two hours per week for one year.
**Prerequisites:** Building Construction 2A.
**Syllabus:** Site investigations, dewatering, tests and sampling. Footings for framed multistorey buildings. Concrete practice and technology. Floor, wall, roof and ceiling systems. Internal finishing methods. Fire-resistant construction plastic in building. Concrete shell and folded plate construction. Construction of steel frame and concrete frame multi-storey buildings under pinning and shoring.
**Assessment:** Final three hour examination.
**References:** To be announced.

Building Construction 3B BP4300
A course of two hours per week for one year.
**Prerequisite:** Building Construction 2B.
**Syllabus:** A folio of drawings covering eight selected topics, appropriate to the grade, to be submitted at the end of the year for examination. Drawings will be solutions of given problems.
**Assessment:** Assessment of drawings.
**References:** To be announced.

Building Construction 3C BP4400
A course of three hours per week for one year.
**Prerequisite:** Building Construction IIC (or equivalent) should be completed before starting this subject.
**Syllabus:** To extend student understanding of applied mechanics and the behaviour or structural components to the consideration of whole structures.
**Assessment:** The subject to be internally assessed by assignment work and tests, which will be reviewed by a panel of examiners.
**References:** As advised.

Building Mathematics (T) BC1400
A course of two hours per week for one year.
**Prerequisite:** Year 10 Mathematics.
**Syllabus:** Basic mensuration. Applied trigonometry. Construction and transportation of formulae. Beam calculations vectors.
**Assessment:** Final three hour examination.
**References:** To be announced.

Building Science (T) BS2100
A course of two hours per week for one year.
**Prerequisites:** Nil.
**Syllabus:** Mechanics, timber technology, void space, properties of materials, study of various building materials. Plastics, air and ventilation.
Heating, acoustics, light, colour and illumination, hot water service, practical experimental work.

Assessment: Final three hour exam 60 per cent, laboratory work 40 per cent.

References: To be announced.

Building Surveying (T) BY4100
A course of four hours per week for one year.
Prerequisite: Building Maths (T).
Syllabus: Areas of plane figures and volumes of solids, use of levelling instruments (dumping, theodolite, etc.). Measuring distances, recording observations, datum points, bench marks, grades, bearings.
Assessment: Final three hour exam 60 per cent, field work 40 per cent.
References: To be announced.

Communication and Report Writing XC1100
Prerequisite: Nil.
Syllabus: Communication Theory; technical report writing techniques and composition, oral reporting; discussion skills; interviewing techniques, audio-visual communications; memo writing; letter writing; graphic communication.
Assessment: Assessment of work will be on a cumulative basis which will include a major technical report.
Prescribed text: Assigned articles plus material and lecture notes.
References:

English Expression YG0200
The objectives of the subject are those set down by the Victorian Institute of Secondary Education (VISE) in its current handbook, and students enrolling for this subject are advised to familiarise themselves with the subject prescriptions stated in that publication. Information about prescribed texts may be obtained from the Administrative Assistant.

Professional Practices of a Building Surveyor — Part 2. BL6700
A course of two hours per week for one year.
Prerequisites: Statutory Control of Buildings — Part 1.
Syllabus: To impart to students an appreciation of those administrative procedures and principles which particularly apply to a building surveyor's office.
Assessment: Two three-hour external examinations.
References: As advised.
Practical Inspection (Building) BL4800
A course of two hours per week for one year.
Prerequisites: Nil.
Syllabus: Designed to train potential building inspectors. The aims of inspection include: protection to owners, builders and workers, prevention of unsound practices, and strict adherence to codes of material and craftsmanship.
Assessment: Final three hour exam.
References: To be announced.

Scaffolding Inspection 1A & 1B BL3900 & BL4900
A course of two hours per week for one year.
Prerequisite: Year 10 or other suitable qualification.
Syllabus: Covers interpretation of scaffolding regulations, defines responsibilities of all persons involved in the provision, erection, and use of scaffolding including steel tube frames, suspended cantilever bracket, ladder and miscellaneous equipment.
Assessment: A (Administration) Final two hour exam. B (Structural) Final two hour exam.
References: To be announced.

Statutory Control (Building) BL5700
A course of two hours per week for one year.
Prerequisite: Building Construction 1.
Syllabus: To impart to students an appreciation of the administration procedures and principles which apply to a building inspector's duties.
Assessment: One two-hour and one three-hour examination.
Reference: To be announced.

Technical Reports (Building) BR4100
Syllabus: To teach the student to search, collect and record information. Techniques such as observation, interviews, etc. will enable the student to write and give oral reports.
Assessment: Final three hour examination, 60 per cent of final grade. Class assignments, 40 per cent of final grade.
References: To be announced.

ACCREDITED VOCATIONAL COURSES
BUILDING CONSTRUCTION
Course Code: SB
A course in the basic theory and practice of building construction. Each subject requires at least two hours per week for study, for one year.
For details of the syllabus covered by this course, see the subject synopses in this handbook.
Subject                               Code
Building Construction 1A        BP2200
Building Construction 1B        BP2300
Building Construction 2A        BP3200
Building Construction 2B        BP3300
Building Construction 3A        BP4200
Building Construction 3B        BP4300

CRANE OPERATORS BG1100 Course Code: SR
The course covers slinging, chain slings, blocks and tackle, slinging from monorail, wire and fibre ropes, for crane drivers, dogmen and chasers. Students who successfully complete the course may be credited with having passed the theory part of the DLI examinations.

The duration of the course is three hours per week for 16 weeks (one semester).
Assessment: Practical assessment plus a two hour written examination.

RIGGER CLASS 3 AND CLASS 4 BR1300, BR1400 Course Code: SR
This course comprises two subjects, Riggers 3 BR1300 and Riggers 4 BR1400, which cover rigging working connections with erection and dismantling of suspended working platforms for, respectively, heavy duty swing stages, and light duty swing stages and boatswains chair. These subjects are studied for three hours per week for 16 weeks (one semester).

Students who complete the course successfully may be awarded DLI Certificates as Riggers Classes 3 and 4.
Assessment: Practical assessment plus three hour written examination.

SCAFFOLDING 1 AND 2 BS1100 AND BS1200 Course Code: SR
The course comprises two subjects, Scaffolding 1 BS1100 and Scaffolding 2 BS1200, and covers Pole Scaffolding, both tube and timber frame, cantilever, frame and brackets.

Students who successfully complete this course may be awarded a DLI Certificate of Competency as a Scaffolder, Classes 1 and 2.

The duration of the course is three hours per week for 16 weeks (one semester).
Assessment: Practical assessment, plus a three hour written examination.

Department of Engineering Metal Trades
FITTING AND MACHINING — APPRENTICESHIP Course Code: AF
The Fitting and Machining course is offered under the Modular Training Scheme and requires apprentices to attend school one full day of eight
hours per week for three years. No credits are given for ex Year 10 or Year 11 students, although a student may start at Module 5 if a satisfactory result is obtained from a placement test.

**Craft Examination** (Fitting & Machining Module 20):

*Section 1 — Theory*

One paper, of three hours duration, based on Modules 1-19. Qualifications for entry to examinations are passes in Modules 1-19.

*Section 2 — Practice*

One examination, of five and half hours duration, based on Modules 1-19. Students who are unable to gain 35% of the allocated marks for the theory section are not eligible to present for the practical examination.

Note — The final examination result will be obtained from the average of the marks gained in the theory and practice sections.

**Module Number and Code — Details**

**Core Modules**

*First year*

**Module 1 TM0100**

Safety principles, marking out, handtools, filing, measuring and testing tools, lathe preparation, lathe operations.

**Module 2 TM0200**


**Module 3 TM0300**

Filing, chisels and chipping, drills and drilling, turning operations, equipment used to hold and set plain work on machines.

**Module 4 TM0400**

Use of mathematical tables, ratio, revision of RPM and cutting speeds. Sectioning, representation of threads, sketching, drawing exercises. Metal working processes, forces, heat.

**Module 5 TM0500**

Filing, drills and drilling, machine cutting tools, lathe operations, shaping machine.

**Module 6 TM0600**

Cutting speeds — related to shaping, application of sine, cosine, and tangent ratios, revision of fractions. Sketching to include methods of fastening parts, machining symbols, auxiliary projection, drawing exercises. Forces — work, energy, power, foundry practices.
Module 7 TM0700
Filing, drilling, grinding practice, screw cutting in lathe, planing and slotting machines.

Module 8 TM0800
Circumferences leading to lead angles of screw threads, multiplication and division of fractions. Material lists, sketching, drawing exercises. Cast iron — properties and uses, steel, light alloys.

Second year

Module 9 TM0900
Lathe operations, cemented carbide cutting tools, economical use of machine tools, indicators.

Module 10 TM1000
Revision of addition, subtraction, multiplication and division of decimals, simple and compound ratios, economical use of machine tools. Revolved and removed sections, dimensioning and tolerances, sketching, assembly and details drawings. Bearing metals, copper and nickel alloys, joining of metals.

Module 11 TM1100
Screw cutting, form turning, turret and capstan lathes.

Module 12 TM1200

Module 13 TM1300
Fitting, checking a lathe for accuracy, scrapers and scraping, lubricants, bearings and clutches, clearance for shafts and bearings.

Module 14 TM1400
Revision of trigonometry, transposition and substitution of formula. Third angle projection, scale drawings, adjacent parts, assembly and detail drawings, sketching. Material testing methods and machines, hydraulics.

Module 15 TM1500
Milling machine.

Module 16 TM1600
Third Year

Module 17 TM1700
Multi-start threads, calculation of lead angles involving large leads and multi-start threads, revision of Trigonometrical functions, gear ratios.

Module 18 TM1800
Operational planning and production tooling.

Module 19 TM1900
Cylindrical grinding, surface grinding.

Module 20 TM2000
Craft examination.

Plus four alternative modules selected from the following groupings:

Boring & Turning Module D21 TM2100
Horizontal boring machine: types, features of construction, types of work, accessory equipment — practical skills.

Boring & Turning Module D22 TM2200
Horizontal boring machine — practical skills — vertical boring machine.

Boring & Turning Module D23 TM2300
Large lathe work: construction, holding methods, setting up, speeds and feeds.
(Boring & Turning Module D24 TM24 NC machines — not available at CIT)

Milling Module E51 TM2700
Tooth forms of milling cutters: plain form, straddle, gang and face milling.

Milling Module E52 TM2800
Milling machine attachments, universal head, slotting attachment, circular attachment, high speed head.

Milling Module E53 TM2900
Simple, direct, angular and linear indexing — rack cutting attachment.

Milling Module E54 TM3000
Helical milling: principle, calculations, setting up, speeds and feeds, depth and length of cut — milling side and end flutes.

Grinding Module G51 TM3100
Precision measurement: standards of accuracy, sources of error, direct versus comparative measurement, gauging, measuring instruments, measuring with precision equipment.
Grinding Module G52 TM3200
Precision grinding: abrasive wheels, universal grinding machines, practical grinding exercises, diamond wheels, grinding tungsten carbide.

Grinding Module G53 TM3300
Tool and cutter grinding: machine types, uses of machine, grinding wheel selection, dressing grinding wheels, diamond wheels.

Grinding Module G54 TM3400
Principles of centreless grinding: operating factors, attachments and accessories, special fixture, lapping, honing, superfinishing.

Tool & Gaugemaking Module H51 TM3500
Precision measurement: standards of accuracy, direct and comparative measurement, gauging and measuring with precision equipment.

Tool & Gaugemaking Module H52 TM3600
Helical milling.

Tool & Gaugemaking Module H53 TM3700
Tool and cutter grinding.

Tool & Gaugemaking Module H54 TM3800
Introduction to toolmaking: press toolmaking, diemaking for plastics and diecasting, tool and gaugemaking.

Diemaking Module J51 TM3900
Precision measurement: standards of accuracy, sources of error, direct versus comparative measurement, gauging, measuring instruments, measuring with precision equipment.

Diemaking Module J52 TM4000
Helical milling: principle, calculations, setting up, speeds and feeds, depth and length of cut, milling side or end flutes.

Diemaking Module J53 TM4100
Tool and cutter grinding: machine types, uses of machine, grinding wheel selection, dressing grinding wheels, diamond wheels.

Diemaking Module J54 TM4200
Introduction to toolmaking: press toolmaking, diemaking for plastics and diecasting, tool and gaugemaking.

Metrology Module L51 TM4300
Standards, engineering units of length, common measuring equipment, surface texture.
Metrology Module L52 TM4400
Errors in metrology and inspection, measurement of squareness, measurement of angles.

Metrology Module L53 TN4500
Extension of errors in measurement, mechanical comparators, precision levels, collimators, measurement of straightness and flatness, measurement of angles.

Metrology Module L54 TM4600
Optics, surface texture, screw thread measurement, instrument construction, comparators.

Welding Module B51 TM4700
Oxy-acetylene process.

Welding Module B52 TM4800
Oxy-acetylene welding: preweld preparation, welding techniques, hard-surfacing.

Welding Module B55 TM4900
Electric arc welding process.

Welding Module B56 TM5000
Electric arc welding: power sources AC/DC, electrodes, fillet welds in flat and vertical positions, are gouging and grooving.

Industrial Hydraulics A51 TM5100
Basic principles, simple hydraulic systems, pumps.

Industrial Hydraulics A52 TM5200
Directional flow control valves, actuators, pressure control, filters and strainers, seals and packing, pipeline hoses and fittings, systems and trouble-shooting, speed control.

Industrial Pneumatics A53 TM5300
Gas laws, basic principles, basic systems, actuators, directional control valves, air service units and speed control.

Industrial Pneumatics A54 TM5400
Compressors, miscellaneous components, airline and fittings, moisture, typical circuits, seals and packing, air motors, maintenance, standards, air gauge units, air lubrication of bearings.
**TECHNICIAN COURSES**  
**MECHANICAL (Mechanical Drafting and Thermal Plant)**

Course Code: TM

**Entrance Standard**

Passes in English, mathematics, science and engineering graphics at Year 10 level.

**Exemptions**

Passes in English, mathematics, physics and leaving engineering graphics at Year 11 level will exempt students from English 1T, Mathematics 1T, Science 1T and Drawing 1T. There will be no exemptions from the Trade Theory and Practice Modules TM0100-TM2000 (see Fitting and Machining Apprentice Course).

<table>
<thead>
<tr>
<th>Year</th>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>TE1100</td>
<td>English 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TC1100</td>
<td>Mathematics 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TS1100</td>
<td>Science 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD1100</td>
<td>Engineering Drawing 1T</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM0100-Tm0800 (of the Fitting and Machining Apprentice Course).</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>TE2100</td>
<td>English 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TC2100</td>
<td>Mathematics 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD2100</td>
<td>Engineering Drawing 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM0900-TM1600</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>TK3100</td>
<td>Mechanics 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TH3100</td>
<td>Applied Heat 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD3100</td>
<td>Mechanical Drafting 1M</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TL3100</td>
<td>Metallurgy 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM1700-TM2000</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>TK4100</td>
<td>Mechanics 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TG4100</td>
<td>Engineering Practices</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD4100</td>
<td>Mechanical Drafting 2M</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TH4100</td>
<td>Applied Heat 2T</td>
<td>2</td>
</tr>
</tbody>
</table>

**PRODUCTION**

Course Code: TP

**Entrance Standard**

Passes in English, mathematics, science and technical drawing at Year 10 level.

**Exemptions**

Passes in English, mathematics, physics and leaving technical drawing at
Year 11 level will exempt students from English IT, Mathematics IT, Science IT and Drawing IT. There will be no exemptions from the Trade Theory and Practice Modules TM0100-TM2000 (see Fitting and Machining Apprentice Course).

<table>
<thead>
<tr>
<th>Year</th>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>TE1100</td>
<td>English IT</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TC1100</td>
<td>Mathematics IT</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TS1100</td>
<td>Science IT</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD1100</td>
<td>Engineering Drawing IT</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM0100-TM0800</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(of the Fitting and Machining Apprentice Course)</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>TE2100</td>
<td>English 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TS2100</td>
<td>Science 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TC2100</td>
<td>Mathematics 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD2100</td>
<td>Engineering Drawing 2T</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM0900-TM1600</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>TG3100</td>
<td>Engineering Inspection 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TJ3100</td>
<td>Jig and Tool Drafting 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TY3100</td>
<td>Metrology 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TL3100</td>
<td>Metallurgy 1T</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM1700-TM2000</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>TJ4100</td>
<td>Jig and Tool Drafting 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TY4100</td>
<td>Metrology 2T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TTI100</td>
<td>Toolmaking Practice 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TT2100</td>
<td>Toolmaking Theory</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TX4100</td>
<td>Production Processes and Development 1T</td>
<td>2</td>
</tr>
</tbody>
</table>

**SUBJECT SYNOPSES**

**Applied Heat 1T TH3100**

Emphasis is placed on the qualitative development of the following topics: Temperature measurement and control, heat and heat transfer, behaviour of gases, properties of steam, boilers and turbines, combustion, IC engines, air compressors.

**Applied Heat 2T TH4100**

Extension of Applied Heat 1T. Steady flow energy equation, power cycles, boiler plant, condensers, turbines, refrigeration, combustion, heat transfer.

**Engineering Drawing 1T TD1100**

Drawing conventions and symbols 1st angle and 3rd angle projections, methods of sectioning, linework valuation, lettering technique, dimensioning procedure, part lists, detail and assembly drawing of engineering mechanisms, vocabulary of engineering trades.
Engineering Drawing 2T TD2100
Projection and arrangement of detail and assembly drawings of a mechanical nature, methods of fastening, transmission and dimensioning.

Engineering Inspection 1T TG3100

Engineering Practices TG4100

English 1T TE1100
Development of ability to read with comprehension and appreciation. Practice in oral and written English. Preparation of clear, concise notes and summaries.

English 2T TE2100

Jig and Tool Drafting 1T TJ3100
Jig and fixtures — advantages, design and construction principles including junction, location and clamping techniques. Tolerancing on tool drafting, reference to standards. Introduction of production planning. Alternative methods of machining, analysis operation times.

Jig and Tool Drafting 2T TJ4100

Mathematics 1T TC1100

Mathematics 2T TC2100
Three dimensional trigonometry. Graphs: hyperbola, parabola and circles. Gradient of a point on a curve. Logarithmic and semi-logarithmic scale. Statistics, graphical representation of data. Scatter diagrams, lines of best fit. Median, mean mode as measures of central tendency. Range and stand-
ard deviation as measure of dispersion. Arithmetic and geometric progressions.

**Mechanical Drafting 1M TD3100**
Geometrical constructions, forming and fabrication, power transmission, emphasis on standard drafting practices.

**Mechanical Drafting 2M TD4100**
Further work on geometrical constructions, power transmissions and mechanism details with related design theory.

**Mechanics 1T TK3100**
Vectors, rectilinear and angular motion, acceleration, inertia and momentum. Friction, work power and energy, machines, mechanical advantage, velocity ratio and efficiency. Behaviour of materials under load.

**Mechanics 2T TK4100**
Statics, kinematics, dynamics, stress and strain, shells and joints, beams, torsion, hydrostatics and fluids in motion. Laboratory work.

**Metallurgy 1T TL2100**

**Metrology 1T TY3100**

**Metrology 2T TY4100**

**Production Processes and Development 1T TX4100**
Metal cutting characteristics of machined surfaces, automatic lathes, milling, abrasive processes, profiling, forming processes.

**Science 1T TS1100**
Science 2T TS2100


Toolmaking Practice 1T TT1100
Toolmaking Theory 1T TT2100

Precision turning, precision boring, micrometers and indicators, vernier instruments, vertical spindle milling machine, precision grinding, gauge blocks. Measurement of angles, testing of straightness and squareness, measurement by optical projection, measurement of length and diameter, measurement of internal diameters. Application of toolmaking formulae and trigonometry.

Toolmaking Practice 2T TT2200 (Press Tools)
Toolmaking Theory 2T TT2300


ACCREDITED VOCATIONAL COURSES

ELEMENTARY FITTING AND MACHINING

Course Code: NA

A part-time, three-year evening course, designed to meet the practical needs of both young and mature-age students, draughtsmen and workers in allied trades wishing to gain some knowledge of the operation of machine tools. Parts 1, 2 and 3 cover the use of drilling machines, lathes, shaping, milling and grinding machines. No formal qualification is necessary for entry to the course.

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Elementary Fitting and Machining Part 1 TF1100</td>
<td>3</td>
</tr>
<tr>
<td>2nd</td>
<td>Elementary Fitting and Machining Part 2 TF2100</td>
<td>3</td>
</tr>
<tr>
<td>3rd</td>
<td>Elementary Fitting and Machining Part 3 TF3100</td>
<td>3</td>
</tr>
</tbody>
</table>
TOOLMAKING — YEAR 1 & 2 Course Code: NA

Toolmaking Year 1 and 2 is provided to enable tradesmen with a proficiency certificate to enter a toolmaking course. The program offered is structured to complement the work covered in the Production Technicians' Certificate.

1st Toolmaking Practice Part 1 TT1100 3
    Toolmaking Theory Part 1 TT2100 1
2nd Toolmaking Practice Part 2 TT2200 3
    Toolmaking Theory Part 2 TT2300 1

Engineering Inspection 1T is offered to persons employed as Inspectors, Quality controllers, etc.

1st Engineering Inspection 1T TG3100 2

SUBJECT SYNOPSES

Elementary 1st year TF1100

An evening subject of three hours of practical work per week for one year.
Workshop safety, use of marking out equipment and hand tools, measuring and testing tools, elementary lathe work including knurling and vee thread screwcutting, drilling machines, elementary shaping operations.

Elementary 2nd year TF2100

An evening subject of three hours of practical work per week for one year.
Further lathe work including square thread external and internal screwcutting, further shaping operations including knurling, elementary capstan lathe work, radial drilling, elementary milling including slab milling, straddle milling, direct and simple indexing, fitting assembly, application of cemented carbides.

Elementary 3rd year TF3100

An evening subject of three hours of practical work per week for one year.
Multiple start screwcutting, cylindrical grinding, surface grinding, turret type milling, elementary horizontal boring operations, milling a spur gear, copy turning.

The Department of Metal Fabrication and Welding

BOILERMAKING AND STEEL CONSTRUCTION APPRENTICESHIP Course Code: AM

The first and second year of this course is offered by the School of Apprentice and Skill Training. This includes the Boilermaking Modules 1 to 8 and Welding Modules 9 to 16 inclusive. Apprentices attend one full day of eight hours per week for their first and second year. Additional welding subjects may be taken by apprentices on a part-time basis.

Year I Boilermaking Apprentices are now working to an objective syllabus which will include Year II Apprentices in 1982.
Module Number and Code — Subjects

First Year

Boilermaking Module 1 BM0100
Trade process, welding processes, general safety, electric welding, marking off principles and fabrications.

Boilermaking Module 2 BM0200
General safety, electric welding, grinding, oxy-acetylene cutting, straightening and levelling, joining rolled S.S.

Boilermaking Module 3 BM0300
Electric welding, S.A.A. codes, oxy-acetylene processes, trade materials, oxy-acetylene welding, toolmaking.

Boilermaking Module 4 BM0400
Electric welding, operational safety, confined spaces, toxic fumes, fabrication procedures, rolling procedures.

Boilermaking Module 5 BM0500
Distortion, containers, volumes, capacities, related maths, fabrication procedures (pipelines).

Boilermaking Module 6 BM0600
Defects in welding, related maths, electric welding, toolmaking.

Boilermaking Module 7 BM0700
Related drawing, reading blueprints, material list, other basic drawing related to the trades (basic).

Boilermaking Module 8 BM0800
Related blueprint reading, material list, other basic drawing related to trade (basic).

Module Number and Code — Subjects

Second Year

Welding Module 9 WM0900
Gases for welding, operational hazards and safety devices, oxy-acetylene welding flames, welding techniques, defects, fusion welding.

Welding Module 10 WM1000
Filler rods and fluxes, fusion welding, bronze and braze welding, flame cutting and allied processes.

Welding Module 11 WM1100
Steel production, properties of carbon steels, mechanical testing, carbon steel plates, forming plates and sections, boilers and unfired pressure vessels, calculations, structural fabrication.
Welding Module 12 WM1200
Plate edge preparation and allied processes for electric arc welding, weld costing, electric arc welding techniques and safety.

Welding Module 13 WM1300
Quality assessment, low hydrogen electrodes, iron powder electrodes, classification of covered electrodes, welding positions, iron oxide electrodes, care and storage of manual arc electrode, heat treatment, electric arc welding techniques.

Welding Module 14 WM1400
Arc welding processes, (submerged arc welding, inert gas welding, metallic inert gas welding), resistance welding processes, electric arc welding techniques.

Welding Module 15 WM1500
Related drawing, reading blueprints, material list, other basic drawing related to the trade.

Welding Module 16 WM1600
Related blueprint reading, material list, detail drawing, technical sketching, other basic drawing related to the trade.

ACCREDITED VOCATIONAL COURSES
WELDING COURSES
Separate courses are provided for electric arc and oxy-acetylene welding theory and practice, and for studies leading to the award of Government Welding Certificates (DLI) in Pressure Vessels, Plate and Pressure Pipe.

ELECTRIC ARC WELDING
Course Code: NE

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code — syllabus</th>
<th>Hours per week</th>
</tr>
</thead>
</table>
| 1st  | Electric Welding Theory 1 WE1100  
The electric arc welding process, safety requirements, welding procedure, definitions, power sources, types of joints, electrodes, defects, distortion, flame-cutting, iron and steel production, heat treatment, resistance welding. | 2              |
|      | Electric Welding Practice 1 WE1200  
Striking arc and forming beads; pad welding, fillet and butt welds; plug and slot welds; flame-cutting and gouging. | 4              |
| 2nd  | Electric Welding Theory 2 WE2100  
Preparation of materials; carbon steels; elec- | 2              |
trades; welding procedures; jigs and fixtures; flame-cutting and allied processes; appreciation of special welding processes and welding costs.

**Electric Welding Practice 2 WE2200**
Pad welding in all positions; fillet welds in all positions, using all types of electrodes; joining structural sections — butt welds in all positions.

**Electric Welding Theory 3 WE3100**
General knowledge of relevant SAA Welding Codes, safety requirements, quality control; welding alloy steels, cast iron and non-ferrous metals; surfacing principles and practices for welding pressure vessels and structures; outline of special welding processes.

**Electric Welding Practice 3 WE3200**
Fillet welds — single and multi-pass in all positions; pad, plug, slot and corner welds; test plates.

### OXY-ACETYLENE WELDING

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code — syllabus</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td><strong>Oxy-acetylene Welding Theory 1 WG1100</strong>&lt;br&gt;Safety requirements; equipment; gases used; definitions of common terms; welding flames preparation; welding techniques; identification of metals; distortion of weldments; welding cast iron and bronze.</td>
<td>2</td>
</tr>
<tr>
<td>2nd</td>
<td><strong>Oxy-acetylene Welding Practice 1 WG1200</strong>&lt;br&gt;Setting up and operating plant, care of equipment; welding practice — forehand and backhand techniques in all positions on low carbon steel plate; pipe cutting with oxy-flame; fusion and bronze welding cast iron.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Oxy-acetylene Welding Theory 2 WG2100</strong>&lt;br&gt;Theory of welding copper and brass, stainless steels, carbon steels, low carbon steel pipe; low-temperature brazing diecast metals, grey cast iron, plastic materials; hardsurfacing; aluminium welding; oxy-fuel gas allied processes.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Oxy-acetylene Welding Practice 2 WG2200</strong>&lt;br&gt;Welding practice on low carbon steel up to 5 mm thick in flat vertical, overhead and horizontal positions; fusion of copper, bronze welding copper; low-temperature brazing; Stainless steels; hard-surfacing; pipe welding.</td>
<td>4</td>
</tr>
</tbody>
</table>
Oxy-acetylene Welding Theory 3 WG3100
General knowledge of relevant SAA Codes; sound knowledge of filler rods; defective welds; costing and estimating; jigs and fixtures; welding aluminium, Inconel, Monel, nickel, special cast iron and alloy steels; welding high tensile strength tubular steels, pipe and tube welding.

Oxy-acetylene Welding Practice 3 WG3200
Fusion welding low carbon steel up to 6 mm thick, in all positions; fusion butt welding aluminium, copper, brass, silicon bronze and stainless steels. Low-temperature brazing stainless steels, copper and aluminium; welding pressure pipes — butts and branches.

WELDING SPECIAL WS1100 (Theory) WS1200 (Practice)
Course Code: WS
This course teaches the theory and practice of electric arc and oxy-acetylene welding for students intending to take the following DLI Certificate examinations:

<table>
<thead>
<tr>
<th>Certificate number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manual metal-arc welding of carbon steel plate and double-butted carbon steel pipe.</td>
</tr>
<tr>
<td>1E</td>
<td>Manual metal-arc welding of carbon steel plate and carbon steel pipe over 270 mm outside diameter.</td>
</tr>
<tr>
<td>3</td>
<td>Manual metal-arc welding of alloy steel plate and double-butted alloy steel pipe.</td>
</tr>
<tr>
<td>3E</td>
<td>Manual metal-arc welding of alloy steel plate and alloy steel pipe over 270 mm outside diameter.</td>
</tr>
<tr>
<td>4</td>
<td>Manual metal-arc welding of alloy steel pipe.</td>
</tr>
<tr>
<td>6</td>
<td>Gas welding.</td>
</tr>
</tbody>
</table>
The School of Community and Access Education was established in 1980 in an attempt to draw together the wide range of educational offerings of a non-traditional nature provided by the TAFE division of CIT.

The school has three departments:
The Department of Access and Bridging Programs;
Compensatory Education Department;
Community Education Department (Short Courses and Industry Programs).

These three departments work together to provide access to education for people from the community who may either wish to re-enter the education system, take on programs which provide them with an opportunity for personal development or provide opportunities for disadvantaged groups from the community wishing to gain access to education. The programs offered are directed at catering to the needs of a variety of community groups. These include the disabled, migrants, women, adult illiterates, unemployed, and mature-age people returning to study.

The courses offered are conducted at CIT or in a number of community centres outside CIT.

The Department of Access and Bridging Programs

EDUCATION PROGRAM FOR UNEMPLOYED YOUTH

This program is designed to assist unemployed youth between the ages of 15 to 24 to gain literacy and numeracy skills, as well as personal and life skills which will enable them to become more employable. During the year, two such programs are run, each of 16 weeks duration.

WOMEN'S ACCESS PROGRAMS

These are programs designed specifically for women and cover the following areas:

Women's Access Tertiary Orientation Program

This is an alternative Year 12 designed with the need and interests of women in mind. Five subjects are offered — English, Psychology, Politics, Statistics and Women's Studies. The range of subjects will be extended in 1982. Courses are taught at CIT and at neighbourhood centres in Brighton, Glen Waverley and Malvern.

The program, which may be undertaken on a full or part-time basis, is designed to offer an alternative route to tertiary education. The subjects may also be studied purely for interest or stimulation.

Community Based Skills and Interest Groups

These cover a broad range of areas, in both type and duration, from special film screenings and self-awareness workshops to 10 week courses in basic
carpentry or hand made pottery. The courses are offered in neighbourhood centres at Malvern, Mount Waverley, St. Kilda and at CIT. Through these community courses it is hoped to offer women further opportunities in TAFE.

**Girls Access Link Programs**

Link programs are run in conjunction with local secondary schools. The programs are designed to broaden the range of career options open to girls. By introducing girls to CIT's courses in the Electronics, Mechanical Engineering and Ceramics areas it is hoped to open up these non-traditional employment areas to girls.

**PROGRAMS FOR THE DISABLED**

A range of programs for the handicapped are offered at CIT. These include:

**Pre-vocational Skills Development**

This program involves students in a variety of activities and provides them with opportunities to improve both their personal and academic skills.

The program focuses on the development of numeracy and literacy skills, and, in addition, offers a range of electives which are designed to enable the students to cope with life in a more independent manner. Work experience in various areas within CIT is an integral part of the program.

**Link Program for Students from Special Schools**

This program is directed at students in their final year of special school. It aims to provide these students with a range of activities of both a vocational and social nature. Activities include typing and other office duties; process and assembly work; gardening and nursery work; ceramics and metal processing.

**Further Education Program for Adults Attending Day Training Centres**

This course is conducted one evening a week at CIT and is designed to develop confidence and independence among the participants by providing them with opportunities to develop skills in the areas of numeracy and literacy, opening up useful and interesting hobbies and leisure activities, expanding their life skills and by broadening their range of social contacts and activities.

**WAY-IN PROGRAM**

This program takes place in the day and evening during second semester and is designed to prepare people for entrance into Year 12 programs. There are no prerequisites for any of the courses. Subjects offered fall into three main categories:

(a) General Studies and Humanities
(b) Applied Science
(c) Business Studies

28
The range of subjects includes:
English Expression — this subject is compulsory for all students taking the Way-In Program.
Biology
Bookkeeping
Chemistry
General Business Education
Introduction to Literature
Introduction to Psychology
Introduction to Sociology
Mathematics
Physics

**SUBJECT SYNOPSISES**

**Approaches to Literature YC0100 12 weeks**
This is an elective subject and is designed to cater for those students with an interest in the study of English Literature. A range of novels and short stories will be covered.

**Biology YT0100 15 weeks**
This course will consist of a series of lectures and laboratory work designed for those students who wish to study Biology at Year 12. Areas covered will include diversity in animals, plants and organisms; organisms and communities; adaptation on land; activity and interaction; reproduction; changes in patterns of life.

**Book-keeping YC0700 12 weeks**
This is intended as an introductory course. It will include an examination of journals, ledgers, trial balances, petty cash, bank reconciliation and payroll.

**Chemistry YT0200 18 weeks**
This course will cover basic chemistry topics for those students who wish to continue their chemistry study into Year 12. Laboratory work will be included. The areas to be covered will include atomic structure, the nature of matter, chemical bonds, gases, solutions, stoichiometric relationships and naming chemicals.

**English YC0200 20 weeks**
All students will be expected to take English in the Way-In Program. The course will attempt to assist students to reach an acceptable level of written and spoken English before tackling Year 12 courses of study. Attention will be paid to individual weaknesses and, where possible, separate programs will be designed to overcome these.

**General Business Education YC0400 12 weeks**
This course is designed to provide students with a background to business and the law, with emphasis on economics and consumer sociology.
Introduction to Psychology YC0500 12 weeks
This course is designed to promote a greater understanding of human relationships through a study of elementary psychology. The main objectives of the course are to learn to understand human behaviour and to give students a greater insight into their own reactions and those of people they deal with on a day-to-day basis. Areas of discussion will include personality development; perception; human needs; temperament; emotional and psychological adjustment.

Introduction to Sociology YC0600 12 weeks
This will be an elective subject and will centre on an examination of a number of social and political issues and problems within the context of Australian society. Emphasis will be placed on a sociological analysis of society in considering these problems and issues.

Mathematics YT0300 18 weeks
This course is designed to lead students into HSC Mathematics, TOP Mathematics, Sciences and Engineering and the Mathematics which are covered in General Studies courses. Areas to be studied will include: number systems, indices and logarithms, matrices, polynomials, sketch graphs, simple trigonometry, permutations and combinations.

Physics YT0400 18 weeks
This course is designed to lead students into HSC Physics or TOP Physics. Laboratory work is included in the course. Topics to be studied will include system of units, vectors, kinematics, particle dynamics, rotational dynamics, electricity and magnetism, optics; models of atoms, waves.

TRANSITION EDUCATION
The School-to-Work Transition Program
This program is designed to enable young people, particularly those who have had lengthy periods of unemployment, to improve their employment prospects by encouraging them to obtain further education and training.

Courses provided under Transition Education in TAFE are open to all young people in the 15-24 age group, although priority in selection goes to the longer-term unemployed.

The Transition Education Program aims to provide wider options in education and training for young people aged 15-24 years who leave the education system ill-prepared to compete in the labour market and consequently encounter serious difficulties in making the transition from school to work.

The programs last for 36 weeks and offer courses in the following areas:

Metal Processing
This program is designed to provide students with an interest in the metal processing area with a range of skills and activities to further that interest and possibly to provide avenues for employment. Areas to be covered in-
clude welding, metal fabrication, technical drawing, and intensive programs in the areas of basic literacy and numeracy.

Retail/Clerical
This program is designed to provide students with an interest in the retail/clerical areas with an opportunity to pursue their interests in this area, and hopefully to assist them to obtain employment. The main emphasis of the course is to acquaint students with a knowledge of the retail area by providing them with practical activities, focussing on selling skills, business communication, and the development of personal skills.

Intensive English as a Second Language (ESL) Program for Migrant Youth
This program aims to provide migrant youth with the English Language skills to enable them to become more employable or to provide them with the foundations to go on to further study.

BRIDGING PROGRAMS FOR BLUE COLLAR WORKERS
By working with, and through, the trade union movement, the School of Community and Access Education hopes to develop both the personal, academic and employment related skills of blue collar workers by offering them the opportunity to take part in a range of TAFE courses.

PROGRAMS FOR OLDER ADULTS
These courses are designed to provide older adults with an opportunity to develop interests and skills unavailable to them while they were working. Creative writing, oral history and interpersonal relations are among the courses offered. The courses also offer older adults the opportunity to expand their social contacts and activities. Courses are conducted at CIT and in the community.

The Department of Compensatory Education
The Department of Compensatory Education offers a range of educational programs designed to suit the individual needs of the many different people within CIT and the wider community. They cater specifically for people who previously were denied access to further education for want of the necessary prerequisites.

The programs include:

PROGRAMS FOR MIGRANTS
Migrant English
Both day and evening classes are offered at different levels. Classes cover the skills of listening, speaking, reading and writing and include the use of a language laboratory.
Study Skills for Migrants

This intensive four week program assists students to confidently begin Year 12 or other courses of study in 1982. Separate groups cater for native and non-native speakers of English. The course covers:
- Organisation of study
- Reading and note taking
- Lectures and note taking
- Essay and report writing
- Research techniques

TOP Alternative Migrant English Classes

This is an alternative English Program which is offered to those migrant students who are enrolled in TOP studies. Classes begin in February. Students wishing to take this subject must apply at the time of enrolment to the Migrant English Department, for approval.

PROGRAMS FOR NATIVE BORN AUSTRALIANS

Basic Education

Programs in Literacy and Basic Education have been designed for people who are unable to benefit from conventional education programs due to insufficient primary or secondary education or who are handicapped by their poor grasp of literacy and/or numeracy skills. The objective, therefore, is to provide the missing links in a nurtured educational environment.

In the Basic Education program, small groups of adult students work with a trained teacher to develop their literacy and/or numeracy skills, either during the day or evening.

Students from non-English speaking backgrounds who are not recent arrivals to the country are also provided with appropriate classes.

Adult Literacy

To assist the many adults in the community who are not sufficiently literate, volunteers are trained as tutors and matched on a one-to-one basis with a student.

Students and tutors meet at mutually-convenient times, either at CIT or in one of their own homes.

Resources and materials are provided by the Institute. Many group activities are arranged for students. Tutors may take advantage of on-going training.

Spoken English

Classes are offered during the day in Spoken English, some of which are particularly suitable for people from non-English speaking backgrounds. These classes have an emphasis on pronunciation and word usage. Other classes concentrate on what is said and how it is said. These classes are for people who want to develop conversation skills.
Numeracy and Basic Mathematics Skills

Resources are now available to cater for community needs in numeracy and basic mathematics skills.

The numeracy program aims to assist people who feel they do not possess basic survival skills in mathematics. This course emphasises the understanding and knowledge of the basic arithmetical processes, and applies this to practical problems connected with money, distance, time, etc. The efficient use of calculators is also taught.

Advice and counselling is available in the mathematics area for people who are unsure of their abilities and who may wish to attempt further studies involving mathematics.

PROGRAMS FOR ENROLLED STUDENTS

Apprentice Programs

Literacy and/or numeracy classes are conducted for Certificate of Technology students, Certificate of Applied Science students and Trade Tertiary Orientation Program (TTOP) students. These programs help students improve their skills in literacy and numeracy.

Compensatory Education for Year 12 Students

A Compensatory Education teacher works with the classroom teacher to prepare individual programs for Year 12 students who have difficulty in meeting written and oral associated demands of the courses.

In some cases, small group and individual tuition is offered for students with specific difficulties.

The programs may assist students with basic writing and essay writing skills, clear thinking, and general study skills.

PREPARATORY POLICE STUDIES

This program is designed to assist people wishing to enter the Police Force to reach a standard whereby they will be able to cope with the Police Entrance Examination.

During the year three programs are organised, each of which is of 10 weeks duration.

Department of Adult Short Courses and Industry Programs

The range of adult short courses offered through the School of Community and Access Education provides opportunities for learning, self or skill development, and the fun and stimulation of meeting new people.

Business and General Studies Program

Basic Science for Nurses
Basic Typing
Bookkeeping (Basic)
Bookkeeping II
Computers in Education
Dictaphone (Audio) Typing
Elementary Computer Programming
Operating a Small Business
Planning and Starting a Small Business
Shorthand Theory (Pitman 2000)
Shorthand (Speed for Beginners)
Typing for Beginners
Typing II

Language and Visual Arts Program
Chinese (Mandarin) for Beginners
Conversational German
Conversational Hebrew
Dutch for Beginners
French for Beginners
French II
German for Beginners
German II
Hebrew for Beginners
Indonesian for Beginners
Italian for Beginners
Italian II
Italian III
Japanese for Beginners
Modern Greek for Beginners
Spanish for Beginners
Spanish II
Thai for Beginners
Visual Art of Japan

Food, Health and Human Relations Program
Cake Decorating for Beginners
Dinner Party Cooking
Human Relations
Indian Vegetarian Cooking
Introduction to Wine Appreciation
Personal Development Skills
Personality Development and You
Yoga for Beginners (Hatha)

Creative Hobbies and Skills Program
Alternative Stained Glass Techniques
Basic Jewellery Construction
Basic Photography
Photography II
Creative Figure Drawing
Discovering Antiques
Dressmaking
Efficient Reading
Enjoying Creative Writing
The courses vary from one week to three weeks in length. They offer valuable guidelines as to the best ways to travel and some of the common pitfalls in travel. In each of the courses the following details are considered:

* places of interest in each country
* the variety of transport available
* health requirements
* passport and visa requirements
* escorted tours and unescorted travel
* exchange rates and money
* baggage and clothing
* pitfalls to avoid
* what to do when in trouble
* travelling within a different culture
* getting value for money

The courses are being organised by Graham Crook, a Travel Consultant, who is arranging for professional consultants from Tourist Offices, Airlines and Tour Operators to lecture, present information and answer questions. Films will be used extensively to highlight particular aspects of each country.

It should be carefully noted that this is a course for intending travellers overseas and is not for people who wish to gain employment in the travel industry as consultants.

South East Asia
China and Hong Kong
Pacific Area (inc. all Islands and ship travel)
Australia
North America (inc. Canada and Alaska)
South America
South Africa
USSR and Scandinavia
Europe and the British Isles
Basic Science for Nurses
This short course is designed for those students with little or no background in Chemistry, Physics and Quantitative Methods.
Topics covered are suitable for registered nurses who wish to do further study and for students who have been offered a place in a training hospital and are waiting for the next intake.

Basic Typing
Students will be given step-by-step instructions on keyboard mastery, followed by an introduction to basic layout, letter display and easy centering and tabulation exercises.

Bookkeeping (basic)
This course is designed for people working in small business, or those wishing to gain employment in business and commerce. It is an introductory course which includes journals, ledgers, trial balance, petty cash and bank reconciliation.

Bookkeeping II
This course follows on from the basic bookkeeping program and includes stock records, revenue statements and balance sheets, control accounts and subsidiary ledgers, depreciation and asset registers, and an introduction to budgeting.

Computers in Education
This course is designed to cater for secondary teachers who intend to develop, or have recently undertaken, some computer studies courses in their schools. The course will cover various means of implementing computer studies in the school. Material and instruction in computer programming, using BASIC program language, will be provided. No previous knowledge and/or experience in computer studies is required.

Dictaphone (Audio) Typing
This is an introductory course to train students to use a dictaphone and type confidently and efficiently from it. Students beginning the course should have completed a basic course in typing and be able to type from printed matter at the rate of at least 30 wpm.

Elementary Computer Programming
This course is designed for people with little knowledge of computers. It will introduce the processes of computer programming using BASIC language. The course does not depend on a high level of mathematical skill and students will be using a small computer.
Operating a Small Business
Managing successfully or simply managing? Whatever the case may be, you, the owner/manager of a small business, do need information and knowledge to make decisions. This course aims at assisting you to make better decisions. Topics included are: marketing, financial management, taxation, insurance, and the legal problems of a small business.

Planning and Starting a Small Business
Do you want to start your own business?
A course in planning and starting a small business is your first step in the right direction. The course covers the preparation of your overall plan, sources of finance, financial management, marketing and advice from a successful business person.

Shorthand Theory (Pitman 2000)
The complete theory course is covered during this program. Each lesson will include an introduction of new outlines, followed by writing and reading practice. Throughout the course, students will develop some skill in writing shorthand at speed.

Shorthand (speed for beginners)
This course is designed to enable those students who have completed the theory of Pitman’s 2000 to expand their shorthand vocabulary and increase their rate of writing to a speed of approximately 80 wpm.

Typing for Beginners
This course will teach students the basic touch typing skills and will include some instruction in displaying simple letters and tables.

Typing II
This course allows students, who have already mastered the keyboard, to achieve a higher standard of proficiency in all areas of display, and further increase their accuracy and speed. A textbook may need to be bought by students.

LANGUAGE AND VISUAL ARTS PROGRAM
SUBJECT SYNOPTSES

Chinese (Mandarin) for Beginners
The course deals with spoken and written Mandarin Chinese (putonghua). Pin-yin romanisation will be used and a limited number of simplified characters introduced. Discussion about Chinese culture, travel and current affairs will be encouraged.
Conversational German
The main emphasis of this course will be on developing conversational skills through reading and discussions, where vocabulary and revision of important grammar points will be stressed. Students would need to have completed German II at CIT or the equivalent elsewhere or to have some experience in speaking German. Books used will be: (obtainable from tutor) Schuams Outline of German Grammar by Elke Gschossmann Wahre und erfundene Geschichten by Halm.

Conversational Hebrew
This course is designed for those with a basic knowledge of the language. Most of the course will be conducted in Hebrew. Emphasis will be on the active use of the language — hence lessons will be based on conversation and discussions covering a wide range of current issues. Topics for discussion will be selected by students and based on text and newspaper readings as a means of building vocabulary.

Dutch for Beginners
This course will be of interest to those who want to learn to speak and understand Dutch. Practice in translation, discussions on culture, customs and travel in Holland will also be covered.

French for Beginners
This course is designed for students who wish to acquire some facility in basic conversational and written French. Simple conversation, vocabulary, reading, basic grammar, culture and travel will also be covered.

French II
This course is designed to continue on from the basic conversational and written French course. Students should have completed the basic French for Beginners course at CIT or the equivalent elsewhere.

German for Beginners
This course is designed to promote a balanced development of the basic skills of reading, writing, speaking, translating into and from German and comprehending basic German, with emphasis placed on spoken German.

German II
This course is designed to continue on from the basic German course of speaking, reading, writing and translating German. Students should have completed the German for Beginners course at CIT or equivalent elsewhere.
Hebrew for Beginners
The emphasis of this course will be on conversation and developing a vocabulary used in practical situations and daily experiences. The course will include an introduction to reading and writing Hebrew and will cover simple grammar. Also covered in the course are some aspects of Israeli culture and travel.

Indonesian for Beginners
This course is designed to enable students to understand basic patterns of spoken Indonesian; read simple modern Indonesian; express themselves in both spoken and written Indonesian, and gain some understanding of the geographical and cultural background of the country.

Italian for Beginners
This is a basic introductory course in conversational and grammatical Italian, with writing and reading instruction and general discussion of Italian historical, social, cultural and travel aspects.

Italian II
The main emphasis of this course will be to continue the conversational and grammatical Italian taught in the Italian for Beginners course. Reference will also be made to writing and reading basic Italian. The social, historical and cultural aspects will be continued. Students should have completed Italian for Beginners or the equivalent elsewhere.

Italian III
This course is designed to continue conversational and grammatical Italian with some reading, writing and general discussion of Italian historical, social and cultural factors. Students should have completed Italian for Beginners and Italian II courses at CIT or the equivalent elsewhere.

Japanese for Beginners
This course aims to introduce students to elementary Japanese. The course will cover simple greetings and conversation, pronunciation, elementary grammar structure and Japanese script. It will also give some insight into the culture and lifestyle of the Japanese people.

Modern Greek for Beginners
This course is designed for students who want to speak, read and write Greek effectively. A language laboratory is used to assist learning. Also covered in the course are some aspects of Greek culture and travel.

Spanish for Beginners
In this course you will gain a working knowledge of everyday spoken and written Spanish. The course deals effectively with everyday situations through prose and dialogues and provides social and cultural information.
about Spain and Latin America. The textbook is *Eso Es*, by Masoliver, Hakenson & Beeck (Longman, 1975).

**Spanish II**

This is designed to follow Spanish for Beginners and students will need to have completed at least the first 12 chapters of the textbook *Eso Es*, by Masoliver, Hakenson & Beeck (Longman, 1975). The emphasis will be on conversational Spanish.

**Thai for Beginners**

This course is an introduction to elementary Thai language. It includes greetings and conversation using Thai words and phrases and oral and written translation. It includes discussion of cultural and historical aspects of Thailand. This is a useful course for travellers.

**Visual Art of Japan**

This is an introductory course on the basic styles of traditional Japanese painting, woodblock prints and other art forms. It will examine the social and cultural influences which shaped the development of art forms throughout history. Films will be shown and a gallery visit may also be included.

**FOOD, HEALTH AND HUMAN RELATIONS PROGRAM**

**SUBJECT SYNOPSISES**

**Cake Decoration for Beginners**

In this course you will learn the basic skills of Cake Decoration, which will lead on to more advanced work. The course fee includes boards, icing, colouring and eggs. Students will need to provide their own tubes, bag and cake.

**Dinner Party Cooking**

This is a very extensive course in food preparation and cooking, with students participating in the actual preparation. Basic ingredients are provided but some food must be purchased by the student. You will need to bring an apron and tea towel to each class.

**Human Relations**

The aim of this course is for students to learn personal development skills. The course will include the techniques of transactional analysis, assertiveness training and relaxation training. Teaching will include an explanation of simple human behaviour theories and structured practical exercises.
Indian Vegetarian Cooking
This course features traditional Indian recipes passed down through generations. Even with the limited vegetables available in Melbourne, it is possible to prepare traditional Brahmin recipes. Students will help prepare the meal before sitting down to it together in a social atmosphere. All food costs are included.

Introduction to Wine Appreciation
This course aims to provide a basic understanding and knowledge of wine in Australia. It covers the wine making regions, the process of wine making, grape varieties, and the characteristics of good wine. Each session includes a wine tasting. The course will include at least a one day visit (at a weekend) to a Victorian winery.

Personal Development Skills
The main aim of this course is to help increase your self-awareness and your ability to communicate. Workshop sessions will include short lectures and exercises in building self-esteem, assertion training, and communication skills.

Personality Development and You
The aim of this subject is to help you gain a greater insight into yourself, your behaviour and attitudes and the way you relate to the world around you. The theories of the humanistic psychologists, Maslow and Rogers, will be introduced to you, with special emphasis on self-realisation.

Yoga for Beginners (Hatha)
Let Yoga teach you how to relax, improve your figure, regain agility and learn new breathing techniques. Loose clothing should be worn. You will need to bring a Yoga mat and rug for your comfort.

CREATIVE HOBBIES AND SKILLS PROGRAM

SUBJECT SYNOPSES

Alternative Stained Glass Techniques
This course provides an alternative low cost way of producing a wide range of mosaic stained glass art forms, such as windows, table tops, lamps, terrariums, and trays. It utilises normal stained glass with liquid resins. It is an entirely new technique, different from conventional leadlighting. It is a unique craft and will satisfy many people’s creative instincts. Use it for making presents or supplementing your income.

Basic Jewellery Construction
Students will learn the techniques of cutting, soldering and polishing using different metals to make interesting and attractive jewellery.
Basic Photography
This course which consists of learning how to operate a camera, develop and print black and white film, is very practical and will include one field excursion. No prior knowledge is assumed and topics are dealt with in a simple manner. Students need their own 35mm camera.

Photography II
Students wishing to do this course should have completed a basic photography course at CIT or the equivalent elsewhere, and are expected to be able to process and print panchromatic material before enrolling. The main emphasis will be on solid practical work with individual and group discussions and projects. A field excursion will be included in the course.

Creative Figure Drawing
This course is for students who have completed a basic course in figure drawing, and who wish to develop their creativity further. It includes figure composition, head studies and costume drawing. A variety of media is encouraged. Students will be advised at the first class of materials needed.

Discovering Antiques
Would you like to know more about a Georgian Spoon, a Victorian Chain, Silver Hallmarks, a Worcester Jug, or even a 'Gum-Nut' pot? These and other treasures of the antique worlds of Australia and overseas, will be discussed and looked at in this course. It is a course for those interested in looking at the world of yesteryear through antiques.

Dressmaking
This course will provide instruction in the use of commercial paper patterns, basic garment construction, the importance of a good 'finish' and how this can be achieved. Some basic embroidery stitches and smocking may be included if requested. The course is designed for beginners or those who have some basic knowledge of dressmaking. Students provide their own materials.

Efficient Reading
Do you feel frustrated because you are unable to cope adequately with all the written material you have to read, or would you just like to be able to read more for enjoyment? This course will enable you to improve your reading speed, eliminate reading faults and read with greater flexibility.

Enjoying Creative Writing
This course is aimed at bringing out the creative urge, by teaching techniques to help the creative writer. Brief lectures will be given but the focus will be on joint participation and free expression. Prior knowledge or skill is not necessary. Please note that the course is not for the purpose of training professional writers.
Figure Drawing for Beginners
This course introduces the student to all aspects of figure drawing, using a variety of media including pencil, charcoal, crayon, water colour and acrylic. Students will be advised of materials needed at the first class.

Frame Weaving for Beginners
This course provides an introduction to traditional weaving skills, using a simple wooden frame. The techniques are simple, easily learnt and can be used in attractive and varied designs to make wall hangings and rugs.

Guitar for Beginners
This course is a series of acoustic guitar lessons for beginners who need to learn to read music as a part of learning to play the guitar. The main emphasis will be on folk music, with some variations of other contemporary styles.

Guitar II
This course will continue on from the level reached in the Guitar for Beginners course. Students must have completed the latter course or be able to read music and have a basic skill in playing the guitar.

Ladies' Tailored Slacks
If you as a home dressmaker have difficulty in achieving that professional finish, then this course could be for you. At the completion of the course you will have learnt techniques in sewing and having completed a pair of slacks that will have that professional finish. A prerequisite for the course is a basic sewing course or extensive experience in home dressmaking.

Leadlight Craft
This course is designed for students without any experience in leadlight craft, and will provide tuition in the basic skills. During the course students will learn how to cut glass and construct a leadlight window and leadlight lampshade. Some materials are included in the cost of the course.

Leadlighting for Beginners
This course will introduce students to the basic techniques of leadlighting. Students will learn designing and cartooning through producing a small panel — how to cut glass, ‘lead up’, solder and putty. Other suggested projects could be tiffany lamps, terrariums, window panes or any other projects of their choice.

Looking Inside Art
This course will look at a wide variety of art, both past and present. It will develop enjoyment and insight into art and a critical awareness of how art works are made. Topics include a look at the Mona Lisa, Himalayan scrolls, contemporary trends. A visit to the National Gallery will be included in the course.
Painting and Drawing
This program caters for beginners as well as those more familiar with general painting and drawing skills. It will cover aspects of the craft of painting as well as compositional skills involving colour, space and form. The media used will be oil, water colour, pencil, charcoal, collage and chalks.

Portraiture and Still Life Drawing
The emphasis in this class is on portraiture and still life. A range of media will be used, including pencil, chalks and water colour. A variety of art styles will be examined. Particular emphasis will be given to accurate character representation. General painting and drawing students may enter this class.

Pottery for Beginners
In this course instructions will be given in methods of using clay as a hand-building medium and in basic wheel-throwing techniques. Five electric wheels will be shared by the group. The emphasis in the course will be on basic skills.

Pottery II
This course will provide professional and personalised tuition for potters to extend their range of skills in both handbuilding and thrown wheel work. We have five electric wheels which will be shared by the group. The course will cover technical skills such as Primitive Firing, Raku Firing, Mould Making, Lamination with coloured clay, and Glaze Formulation.

Understanding the Electronic Organ
You can play your electronic organ but do you get the most out of it? This course is designed to instruct you in the precise workings of these complex instruments. It goes into the proper use of stop combinations, contrast, balance, expression and other playing techniques. It should enable you to achieve more variety, contrast, and musical expression in your playing. However, it is not a course in how to play the organ.

Using Plastics for Art and Craft
This course introduces students to an entirely new and unique craft which employs the common plastic, polyethylene. Many useful and artistic articles can be made, such as sculptures, plaques, jewellery and decorations. There are endless possibilities. Polyethylene is cheap and reusable, and is odourless and non-toxic in use. You will need to bring an electric frying pan which will not be damaged. The cost of the course includes some basic materials.

Welding for the Hobbyist
In this course you will use oxy-acetylene and/or arc-welding techniques. The course will equip the participants with welding skills that they can use
for hobby or work purposes. All materials are supplied (except for model costs).

**Women’s Lives Through Literature**

This is a discussion course on women’s issues using novels as resource material. As a starting point some of the excellent books written by some lesser known women writers will be utilised, each of these raising important questions of great interest to all women. Some of the common themes will include Women and Creativity, Women and Madness, and Women and Sexuality.

**Woodwork for the Hobbyist**

This course covers the common types of carpentry, maintenance and replacements required around the home. It will enable you to learn skills needed to repair doors, windows, flooring, etc.

**BUSINESS, INDUSTRY AND GOVERNMENT COURSES**

Special courses have been designed and conducted upon request from the business community in the past three years.

The Department of Short Course and Industry Programs is keen to develop further links with the private and public sectors in an educational and training capacity, and is now more vigorously attempting to make itself available to the community in trade, technological, commercial and leisure areas. It has been noted that students who have been involved in these courses become interested in others which further their education or training, and that employers become more aware of the vast resources of the Institute as a result of these associations.

Some examples of the services available are listed below. These are available as individual exercises or to be carried out in a total package:

- Quotations for any task. These are generally made at no cost, except where research or curriculum development may be involved as part of the quotation.
- A survey of your needs and detailed discussions about curriculum, to meet those needs.
- Curriculum design.
- Organising total programs in terms of timing, content, staffing and program implementation.
- Catering and/or accommodation facilities.

All students who complete such courses at CIT receive a certificate as an official recognition that they have completed the course.

The costs of the TAFE Division conducting such courses vary according to the range of services being utilised.

To discuss special programs for business, industry or for the public sector, contact should be made with the Head of Department, Short Course and Industry Programs, on 573 2536.
SCHOOL OF FOUNDATION AND PREPARATORY STUDIES

The School of Foundation and Preparatory Studies is located on the main CIT Campus at 900 Dandenong Road, and offers a range of courses including Higher School Certificate for Mature Age Students, Tertiary Orientation Programs, Way In Courses and many others.

TERTIARY ORIENTATION PROGRAM (TOP)

CIT's School of Foundation and Preparatory Studies offers Tertiary Orientation Programs which provide students with an appropriate educational background to pursue tertiary courses.

A student who successfully completes a TOP course that includes the appropriate prerequisite subjects is qualified for admission to advanced education courses at CIT and other tertiary institutions. However, admission to certain courses at some universities still requires passes in HSC subjects, so students are advised to check the requirements for their chosen courses before deciding between a TOP or an HSC course. A TOP Certificate is acceptable for entry into the Public Service, teacher training at State colleges, and other institutions.

Method of Assessment

TOP students are assessed on a continuing basis throughout the course. A TOP student may pass the course either by obtaining a pass mark in each subject at an annual assessment, or the Board of Studies may award the student a pass for the year as a whole. In awarding such a pass, the Board takes into account the student's overall performance in all subjects.

Course Structure

A TOP Course may be studied full or part-time. Each course is structured to meet the educational requirements of the student and the prerequisites of his intended tertiary course. Each student is interviewed and counselled about the selection of subjects for his course.

Typical TOP courses containing subjects appropriate to tertiary courses in Applied Science, Art and Design, Business Studies, EDP, Engineering, General Studies and Secretarial Studies are shown below.

APPLIED SCIENCE

Course Code: EPI

The normal standard of admission is a pass at Year 11 level in English, Chemistry, Physics, Mathematics A and B, or Mathematics I and 2. There are no standard exemptions for any subject; students may apply for exemptions when enrolling if they believe they are eligible.

Subject name and code

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression GE0100</td>
<td>4</td>
</tr>
<tr>
<td>Pure Mathematics YM0600</td>
<td>5</td>
</tr>
<tr>
<td>Applied Mathematics YM0700</td>
<td>5</td>
</tr>
<tr>
<td>Physics PP0100</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry KC0100</td>
<td>6</td>
</tr>
</tbody>
</table>
ART Course Code: EAI

To qualify for admission to the course, students must have completed Year 11 and have submitted a folio of work for final assessment. (For mature-age students, assessment by a panel of a folio of work is the only requirement.) The course involves 26 ‘class-contact’ hours per week — 13 hours are devoted to instruction in practical subjects and 13 hours to academic subjects.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practical subjects</strong></td>
<td></td>
</tr>
<tr>
<td>Drawing AD0100</td>
<td>3</td>
</tr>
<tr>
<td>Design AD0400</td>
<td>3</td>
</tr>
<tr>
<td>plus two subjects from the following list, to be studied in each semester:</td>
<td></td>
</tr>
<tr>
<td>Photography YA0800</td>
<td>3</td>
</tr>
<tr>
<td>Gold and Silversmithing YA0600</td>
<td>3</td>
</tr>
<tr>
<td>Sculpture YA1500</td>
<td>3</td>
</tr>
<tr>
<td>Stained Glass YA1400</td>
<td>3</td>
</tr>
<tr>
<td>Ceramics YA1100</td>
<td>3</td>
</tr>
<tr>
<td>Painting YA0900</td>
<td>3</td>
</tr>
<tr>
<td>Printmaking YA1200</td>
<td>3</td>
</tr>
<tr>
<td>Graphic Design YA1600</td>
<td>3</td>
</tr>
<tr>
<td><strong>Academic subjects</strong></td>
<td></td>
</tr>
<tr>
<td>English Expression GE0100</td>
<td>4</td>
</tr>
<tr>
<td>History of Art AH0100</td>
<td>4</td>
</tr>
<tr>
<td>plus two of the following subjects:</td>
<td></td>
</tr>
<tr>
<td>Sociology YA0200</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy YS0100</td>
<td>3</td>
</tr>
<tr>
<td>Psychology YY0100</td>
<td>3</td>
</tr>
<tr>
<td>Media Studies (Art) NS0400</td>
<td>4</td>
</tr>
<tr>
<td>(Other subjects from the General Studies area may be available as electives also.)</td>
<td></td>
</tr>
</tbody>
</table>

BUSINESS STUDIES Course Code: ETI

Students who have just completed Year 11 in 1981 with passes in English, a minimum of one Year 11 mathematics subject and two other subjects, are eligible to apply for TOP Business.

The course is also designed to fulfil the needs of mature age students who previously have not had the opportunity to attempt studies in preparation for tertiary courses. A lower level of secondary education than Year 11 will not exclude mature age students from entering this course. All prospective students must be interviewed and counselled regarding the selection of their course.
<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE0100</td>
<td>4</td>
</tr>
<tr>
<td>Quantitative Methods A &amp; B NB0200</td>
<td>4</td>
</tr>
<tr>
<td>Accounting 1A &amp; 1B NB0300</td>
<td>5</td>
</tr>
<tr>
<td>Introduction to</td>
<td></td>
</tr>
<tr>
<td>Economics 1A &amp; 1B NB0100</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Law</td>
<td></td>
</tr>
<tr>
<td>1A &amp; 1B NB0400</td>
<td>4</td>
</tr>
</tbody>
</table>

**ELECTRONIC DATA PROCESSING**

Course Code EEI

The normal standard of admission is a pass in English, Mathematics A and B, or Mathematics 1 and 2, and two other subjects at Year 11 level.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE0100</td>
<td>4</td>
</tr>
<tr>
<td>Accounting NB0300</td>
<td>5</td>
</tr>
<tr>
<td>Computer Programming DP0400</td>
<td>4</td>
</tr>
<tr>
<td>Data Processing Systems &amp; Equipment</td>
<td></td>
</tr>
<tr>
<td>DE0200</td>
<td>4</td>
</tr>
<tr>
<td>General Mathematics NM0200</td>
<td>5</td>
</tr>
</tbody>
</table>

**ENGINEERING**

Course Code: EVI

The normal standard of admission is a pass at Year 11 level in English, Chemistry, Physics, Mathematics A and B, or Mathematics 1 and 2.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression GE0100</td>
<td>4</td>
</tr>
<tr>
<td>Engineering Mathematics MM0400</td>
<td>8</td>
</tr>
<tr>
<td>Physics PP0100</td>
<td>6</td>
</tr>
<tr>
<td>Industrial Chemistry KC0200</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Engineering HE0100</td>
<td>4</td>
</tr>
</tbody>
</table>

**GENERAL STUDIES**

Course Code: EGI

The normal standard of admission is a pass at Year 11 level in English and three other subjects. However, if subjects such as Chemistry and Physics are chosen, a pass at Year 11 level in these subjects is a prerequisite. Applicants should note that English and a branch of Mathematics are the only two compulsory subjects in TOP General Studies.
### TOP GENERAL STUDIES SUBJECTS

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian Studies</td>
<td>NW0200</td>
<td>3</td>
</tr>
<tr>
<td>Australian History</td>
<td>NW0100</td>
<td>3</td>
</tr>
<tr>
<td>Australian Studies</td>
<td>NH0900</td>
<td>3</td>
</tr>
<tr>
<td>Biology</td>
<td>YB0200</td>
<td>5</td>
</tr>
<tr>
<td>†Chemistry</td>
<td>KC0100</td>
<td>6</td>
</tr>
<tr>
<td>Classical Civilisation</td>
<td>NW0400</td>
<td></td>
</tr>
<tr>
<td>Drama and Literature</td>
<td>NH0500</td>
<td>4</td>
</tr>
<tr>
<td>Economics</td>
<td>NE0100</td>
<td></td>
</tr>
<tr>
<td>English Expression</td>
<td>GE0100</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>NC0100</td>
<td>5</td>
</tr>
<tr>
<td>†General Mathematics</td>
<td>NM0200</td>
<td>5</td>
</tr>
<tr>
<td>Geography</td>
<td>NW0600</td>
<td>4</td>
</tr>
<tr>
<td>Human Rights</td>
<td>NH0100</td>
<td>3</td>
</tr>
<tr>
<td>Legal Studies</td>
<td>NLO200</td>
<td>3</td>
</tr>
<tr>
<td>Literature and Society</td>
<td>NH0600</td>
<td>4</td>
</tr>
<tr>
<td>Media Studies</td>
<td>NS0300</td>
<td>4</td>
</tr>
<tr>
<td>Philosophy</td>
<td>YS0100</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>NP0100</td>
<td>5</td>
</tr>
<tr>
<td>†Physics</td>
<td>PP0100</td>
<td>6</td>
</tr>
<tr>
<td>Politics</td>
<td>NL0100</td>
<td>3</td>
</tr>
<tr>
<td>Psychology — Human Personality</td>
<td>YY0100</td>
<td>3</td>
</tr>
<tr>
<td>Sociology</td>
<td>YA0200</td>
<td>3</td>
</tr>
<tr>
<td>Statistics for General Studies</td>
<td>NM0100</td>
<td>3</td>
</tr>
<tr>
<td>Women’s Studies</td>
<td>NS0200</td>
<td>3</td>
</tr>
</tbody>
</table>

†A student must have obtained a pass in these subjects in Year 11 before undertaking them in the Tertiary Orientation Program.

### SECRETARIAL STUDIES

**Course Code: ESI**

The normal standard of admission is a pass in English and three other subjects at Year 11 level.

The course is also designed to fulfil the needs of mature age students who previously have not had the opportunity to attempt studies in preparation for tertiary courses. A lower level of secondary education than Year 11 will not exclude mature age students from entering this course. All prospective students must be interviewed and counselled regarding the selection of their course.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE0100</td>
<td>4</td>
</tr>
<tr>
<td>Accounting NB0300</td>
<td>5</td>
</tr>
<tr>
<td>Data Processing 1 ES1300</td>
<td>4</td>
</tr>
<tr>
<td>Secretarial Practice ES1200</td>
<td>3</td>
</tr>
<tr>
<td>Typing ES1100</td>
<td>6</td>
</tr>
</tbody>
</table>
SUBJECT SYNOPSES

Accounting 1 & 2 NB0300
An introduction to business and the accounting conventions. An appreciation of the requirement for business records and the functions of basic business documents. The completion of a set of books to trial balance, the preparation of a bank reconciliation statement, the maintenance of an imprest petty cash system, and debtors and creditors subsidiary ledgers.

Preparation of Final Reports: This unit concentrates on the different formats of final reports required by enterprises. Topics covered include balance day adjustments, closing the ledger, classified revenue statements, single entry records, departmental and branch reports, including consolidation manufacturing statements, accounting reports for non-trading organisations.

Applied Mathematics YM0700
Prerequisites: Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B.

Syllabus: Probability, including probability distributions and functions; statistics; vectors; applications of calculus; kinematics; mechanics; dynamics; statics and an introduction to computer programming in BASIC.

Asian Studies NW0200
A study of the history and society of Indonesia from the 16th century, through the colonial period to the growth of nationalism, independence and modernisation.

It is anticipated that the course will view history through a study of such aspects of culture as art, architecture and literature. If so desired, a language option, modern standard Bahasa Indonesia, will be available.

Australian History NW0100
The subject aims to give an overview of 19th and 20th century Australia. The people of the 19th century are divided into occupational groups in order to look at the ways in which all combined to help Australia grow into a unified nation. The 20th century is examined via the impact of major world events on Australia and Australians. Themes that are developed in the first section are raised again as they relate to the experiences of 20th century Australia.

Australian Studies NH0900
This is a one-year subject composed of two semester units selected from the following:

Migrants in Australian Society
Literature, History and Culture
Urban Studies

The units will examine various aspects of Australian society in a multi-disciplinary way. This course is concerned to identify the significant con-
continuities and changes in Australian life in the 19th and 20th centuries.

Migrants in Australian Society involves an evaluation of the composition of Australian society, attitudes to minority groups, the impact of large scale immigration and changes which may be attributed to immigration.

Literature, History and Culture provides a view of how Australians have seen themselves over a period of time and how, if at all, these views have changed. Questions will be asked about the relationship of the writer to society and whether those writers’ views reflect the broad values of society at the time.

Urban Studies discards the traditional myth of the bushman representing the typical Australian and considers the forces that have affected the growth of cities and towns where the majority of white Australians live. The impact of urban living on lifestyles and attitudes is examined — with the main emphasis being on Melbourne.

Biology YB0200

The functioning organism in the living world, at the organ and system levels. Integration and maintenance of the system. Cellular and molecular levels including some cellular chemistry and energy utilisation. Continuity — reproduction mitosis, meiosis, behaviour due to DNA structure, genetic differences between organisms. Evolution — genetic flow, mutations, man’s interaction with his environment.

Ceramics YA1100, YA2100

A practical and materials orientation study. Students will be introduced to a number of activities which will give them an awareness of: clay preparation, storage and drying; bisque and glaze firing; the use of clays, slips and glazes. The following techniques will be investigated: the pinch, coil and slab methods; throwing on the wheel; the use of moulds; the exploration of clay surfaces.

Chemistry KC0100

Prerequisite: Year 11 Chemistry.


Classical Civilisation NW0400

Our dependence on Classical Greek culture is immense — it ranges through political organisation, art, exact science, philosophy, morality, literature, dramatic forms and rituals and religion.

The general aim of this subject is to provide an introduction to various important elements of Classical Greek culture in a way that will make clear both the unique character of that culture; and why a study of it is so important for us today (especially in the realm of shared emotional experiences).

52
Opportunity will be given for students to develop skills in studying/ transcribing the Ancient Greek language to his/her own level of interest, and thus to directly realize the place of language as the most fundamental expression of the uniqueness of a culture.

The following areas are isolated for specific study:

- Beginnings in history/myth/language
- Drama — tragedy and comedy
- Poetry — lyric and epic
- Philosophy and science
- Art
- History and historiography.

**Computer Programming DP0400**

Introduction to programming, types of language, programming steps and techniques (including flow-charting and algorithms), basic problem solving techniques, program debugging, testing and documentation. The writing of programs to solve elementary business problems using BASIC and COBOL languages.

**Data Processing I ES1300**

The broad areas of the syllabus are that the student should understand the requirements of management for information, and the ability of modern data processing techniques to provide the necessary information; the operation of business systems, eg. payroll, inventory, debtors, using various methods of data processing; the equipment used in electronic data processing — central processor, input/output devices, file storage devices and the functions of that equipment; techniques required for using a computer, ie. flowcharting and programming procedures. The language used will be BASIC.

**Data Processing Systems & Equipment DE0200**

**Systems:** Significance and the need for data processing, the data processing cycle, basic business operations, simple business systems, eg. payroll, order/billing, inventory.

An introduction to the functions and problems of modern data processing systems with emphasis on principles of computer systems management, administration and control.

**Equipment:** The components of a computer system including auxiliary storage devices. Identification and function of alternative forms of input, output and storage devices. Operation of the central processing unit. Function and role of the operating system. Configuration possibilities for various types of computers.

**Design AD0400**

This course aims to provide students with the necessary information and conditions to study some fundamentals of the visual language and become skilled in using their knowledge to expand personal expression in Art. Apart from the study of form, various design processes will be explored.
The created objects of this study will be in both sculptural and pictorial media. Skills relating to these media will form part of the course. Students will complete exercises related to fundamental principles as well as extended projects which rely more on an exploratory and individual attitude. By the end of the course students should have acquired a developmental attitude of benefit to other areas of their study.

Drama and Literature NH0500

This course aims to expose students to a variety of ways of expression (fiction, drama and poetry) in order to promote their own creativity, and to foster an appreciation of the depth and richness of insight made available by these chosen methods. By providing students with the opportunity for self-exploration through creative drama and writing, it is hoped that students will be able to grasp more immediately the relevance of creative literature for their lives, in terms of expanding their awareness of themselves and their world, and as a continual source of delight.

Drawing AD0100

This is a basic study course enabling the student to become familiar with observing, interpreting and drawing natural and man-made objects with confidence and facility, using a variety of graphic media. Encouragement is given to individual creative expression. Projects are given at intervals.

Economics NE0100

The course is designed to provide students with an understanding of economic concepts and to illustrate their use in the light of Australian experience.

Core: Economic aspirations of society — economic decision making; resource allocation and economic systems; the level of economic activity; the pursuit of economic welfare; Australia and the world economy.

Engineering Mathematics MM0400

Prerequisites: Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B.


English Expression GE0100

The program embodies such general aims as the broadening and enrichment of the student's awareness of the world through the development of ability to read more rewardingly, to think and talk more cogently, and to write more clearly, relevantly and creatively.

More specific objectives entail the development of such skills as summarising, evaluating, and relating ideas to one another, as well as formulating, defending, and illustrating one's point of view. Due emphasis is placed on the strengthening of formal skills, which implies attention to grammar, syntax, spelling, punctuation, paragraphing, and essay writing.
Environmental Science NC0100
This course is designed to contribute to environmental education by providing a course concerned with scientific attitudes applied to environmental management and planning.
  - The units studied are:
    - The systems approach and theoretical ecologies
    - Water resources
    - Energy resources
    - Forest resources
  - The course is suitable for students who intend to pursue tertiary scientific courses as well as those who do not.

General Mathematics NM0200
Prerequisites: Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B.
Syllabus: Algebra, differential and integral calculus, statistics, probability, matrices, linear programming, circular functions, mensuration, sequences and series, and permutations and combinations.

Geography NW0600
The aim of the course is an appreciation of the whole environment and the recognition of the impact of geography on our lives. It consists of four units:
  - Meteorology — weather and climate
  - Man and his impact on the environment
  - Agriculture — a technological revolution
  - Manufacturing — industrial location.
  - The course is a practical one developing skills especially in map reading and data representations as well as excursions/field work relating to each of the four areas.

Gold and Silversmithing YA0600
This introduces students to concepts of jewellery and silversmithing design as well as to some fundamental techniques and materials associated with the making of objects in precious and non-precious materials.
  - Basic procedures such as casting and fabrication will include the techniques of sawing, filing, soldering, drilling, grinding, polishing and oxidation. Emphasis will be placed on safe workshop procedures and correct use of tools.

Graphic Design YA1600, YA2700
The historical background is outlined and the development of graphics in the area of visual aids.
  - The student is introduced to the production and function of modern illustration including maps, charts and diagrams. Simple problems are set concerning the legibility of symbols and the methods of representation used in the presentation of visual messages.
History of Art AH0100
This course introduces students to a study of the art movements from 1750 to 1960, including Neo-Classicism, Romanticism, Realism, Impressionism, Post-Impressionism, Cubism to Abstract Expressionism, Pop Art, etc. Australian art from Colonial to the present day will also be covered, and a short survey of non-western cultures may be included.

Human Rights NH0100
Questions pertaining to human rights or civil liberties have a direct relevance to everyone’s life. The aim of this unit is to explore some important questions in this area and thus assist the student in his quest for a deeper understanding of himself as an individual and as a member of society.

The study will involve historical analysis as well as analysis of various problems characterising contemporary social life, and the topics selected for discussion will be treated from a philosophical, psychological and sociological perspective.

Some examples of topics that may be explored are: freedom of expression, freedom of assembly and association, privacy and freedom of information, sexual freedom, the rights of children, the rights of mental patients, police powers, and freedom of movement. Discussion may also involve a review of the present situation in countries other than Australia.

Industrial Chemistry KC0200
The study of fundamental chemistry topics such as atomic structure, the nature of matter and the chemical bond, stoichiometric relationships, chemical kinetics and equilibria, the chemistry of carbon compounds and electrochemistry. These fundamental topics are interspersed with the following applied chemistry topics: polymer compounds, explosives, fuels, corrosion, pollution and water treatment. The practical course of some 10 exercises provides experience in some of the above topics.

Introduction to Economics 1A & 1B NB0100
Basic economic theory encompassing the basic problem, market analysis and economics of the firm. Selected limits from labour economics, international trade, government economic measurement and comparative economic systems.

Introduction to Engineering HE0100
An introduction to basic principles covering Mechanical, Electrical and Civil Engineering and Computer Studies.

Introduction to Law 1A & 1B NB0400
Definitions, sources and divisions; court proceedings and court personnel; examination of partnership and incorporated business; ownership of land, mortgages and leases; personal property; tortious liability (varied types of torts and liabilities); contract law and consumer protection.
Legal Studies NL0200
The syllabus deals with the following topics: Legal reasoning and the understanding of laws as a social institution; the purpose of the law as it relates to the individual person in modern society; the roles of law-making and law-enforcing authorities in Australia; selected aspects of the law which are of direct concern to ordinary members of the community.

Literature and Society NH0300
This course looks at and analyses the relationship between works of imaginative literature and the society in which they are written. In particular, the course will focus on the social content and literary form of the novel and their historical inter-relationship during the 19th and 20th centuries.

Media Studies NS0300
This subject is an introduction to the research and theory of the mass communication media: print, film, radio and television.
Attention will be given to aesthetic appreciation and psychological and sociological implications of the media. Students will be required to complete a report in one area of the subject.

Media Studies (Art) NS0400
This subject is an introduction to the research and theory of the mass communication media: print, film, radio and television.
Attention will be given to aesthetic appreciation and the psychological and sociological implications of the media. Students will be required to submit assignments at given intervals.

Painting YA09, YA29
To introduce students to materials and techniques of painting through a sequential development through the year dealing with such problems as colour, design surface, space and form. Students will attain a foundation of skills as a basis for future development. Projects will be given at intervals.

Philosophy YS0100
Philosophy, as one philosopher observed, begins in wonder. The aim in this subject is to enlarge the student’s understanding of human experience through a study of some questions provided by the history of philosophy.
The central theme of the course is human nature. Topics selected for discussion will be ones which are of interest today and they will be drawn from the areas of religion, moral philosophy, political philosophy and aesthetics. The subject involves an exploration and discussion of the ideas of philosophers belonging to the ancient, modern and contemporary periods.
The starting points of discussion may arise out of some widely treated issues of the present time, such as violence, war, prejudice, freedom and
responsibility, the rule of the law, sexism, poverty, death drugs, work, mass media, the arts, etc. These issues may be approached through a study of Literature.

The following questions illustrate some broader philosophical concerns to which discussion may be related:

- Does man have a soul?
- Is the soul immortal?
- What is reality?
- What is happiness?
- What are the legitimate limits of social control and individual freedom?
- What is an object of art?
- What is an aesthetic experience?
- What is the purpose of art?
- What is an individual person?
- Does man have free will?
- Can God's existence be proved?
- What is self-realisation?

The program of study in each semester will be determined by teachers in consultation with students.

**Photography YA0800, YA2800**

The subject covers basic black and white photographic technique — how to make a correct exposure; developing and printing procedure. Aspects of appreciation will be included in projects set. Students will require a 35mm camera with manual controls and a light meter.

**Physical Science NP0100**

*Prerequisites:* There are no formal prerequisites for this subject although a general science and mathematics background will be helpful.

*Syllabus:*

- **Semester 1:** Basic Chemistry — an introduction to basic chemical principles (atom structure, chemical bonding, stoichiometry, organic chemistry) and their application to the Health Sciences.
- **Semester 2:** Basic Physics — an introduction to basic physical principles (motion, energy, optics, heat, etc.) and their application to the Health Sciences.

**Physics PP0100**

*Prerequisites:* Technical Physics and Mathematics A and B or High School Physics, Mathematics 1 and 2.

*Syllabus:* Systems of units; vectors, kinematics; particle dynamics; friction; rotational dynamics; vibratory motion; electricity and magnetism; waves; optics; gravitation; radioactivity; models of atoms; heat and one optional unit.

**Politics NL0100**

This subject will deal with changes in the foreign relations of countries in the Asian-Pacific region since 1945. The topics covered will include the
Cold War in Asia, the emergence of Japan as an economic power, the rise of nationalism in former colonial countries, the Sino-Soviet dispute and its repercussions on the region, the emergence and progress of ASEAN and Australia’s contribution to the region.

**Printmaking YA1200, YA2200**

To introduce students to materials processes, and techniques in printmaking. Students will acquire skills related to many processes, eg. etching, silk screen printing, etc. Fine art, print appreciation and media identification will be given along with projects at given intervals.

**Psychology: Human Personality YY0100**

This course is conceived of as a phase in a continuous process of life-long education. In this context, the general aim of the course may be stated as being: to enable the student to understand better, and to the best of his ability, both now and as he grows older, himself and his environment.

These general aims point to the emergence in the students’ minds of some systems of working concepts with which to think about what they are experiencing and doing. They also imply changes in students’ feelings in the direction of wider sympathies and deeper insights into themselves and others. With the aid of awakened feeling and fresh ideas, students may be able to make a personal attempt to re-assess their own experience.

The general aims, as characterised above, are pursued mainly through a study of some aspects of the human personality discussed by humanistic psychologists such as Rogers and Maslow, and through a study of some basic concepts and ideas found in the personality theories of depth psychologists such as Freud and Jung.

**Pure Mathematics YM0600**

*Prerequisites:* Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B.

*Syllabus:* Real numbers, complex numbers, relations and functions, binomial theorem, differential and integral calculus, circular functions and inverse circular functions, matrices, linear transformations and curve sketching.

**Quantitative Methods A & B NB0200**

Rapid calculation, interpretation of data, percentages, profit and loss, discounts, simple and compound interest, calculus, linear and non-linear functions, linear programming, matrices. Probability, presentation of data; measures of central tendency, measures of dispersion, the normal distribution, confidence limits, hypothesis testing, correlation and regression, time series.

**Sculpture YA1500, YA2500**

The course is designed to stimulate in the student an awareness of a basic understanding of spatial concepts in relation to sculptural forms; an
appreciation of the tactile qualities of material surfaces; the development of constructional skills necessary to the fabrication of a sculptural idea. 

Section 1: An investigation of space making concepts.

Section 2: The making of one major work developed from experience gained in the first segment.

Secretarial Practice ES1200

The role of the Secretary as an assistant to management; principles and practices which promote good human relations; integration of skills in the performance of practical secretarial tasks related to preparation and planning, routine duties, correspondence, business transactions, collection and preparation of information, meetings, travel arrangements, visitors and social arrangements, and emergency situations.

Sociology YA0200

This course is intended to introduce students to some of the main themes and concepts posited by the sociological approach.

The areas to be looked at include: culture, socialisation, social groups and social relations, institutions, social change.

Stained Glass YA1400, YA2400

This course is designed to expand the range of artistic expression into the media of leaded and painted glass. As a basic study it is suitable to develop appreciation and practical application of general design with particular adaptation for glass panels.

Aspects to be studied: preparation of ideas, designing for glass, the colour cartoon (rendering), black and white cartoon, outline and pattern, painting and firing of glass, assembling (glazing of glass-panels).

Statistics for General Studies NM0100

The subject is designed especially for those students who do not have a strong background in mathematics but will need to study statistics and probability at tertiary level in later years. Topics covered include: graphical analysis, network analysis, presentation of data, measures of central tendency and dispersion, probability, normal distribution, linear regression and correlation.

Typing ES1100

On completion of the subject, students should have the ability to use the typewriter to present mailable copies for office tasks, eg. letters, display, tabulated reports, etc. Students should reach a speed of 40 wpm, and be able to correctly interpret instructions relating to typing tasks.

Women's Studies NS0200

The aim of this unit is to enable students to gain a deeper insight into the roles played by women in social life. The study will concern itself with such topics as the ascribed nature, acculturated dispositions and actual potentialities of women, and will involve an examination of the various issues.
from different points of view, such as the historical, biological, psychological and sociological perspectives.

HIGHER SCHOOL CERTIFICATE (HSC)

Course Code: EMI

The course is designed for mature-age and educationally-disadvantaged people, so the general approach to study and the learning environment are suitable for adult students. All students must pass a minimum of four subjects including English.

Assessment

CIT’s School of Foundation and Preparatory Studies offers Group 1 Higher School Certificate subjects. This means that assessment is based on 20-50 per cent internal school assessment plus the student’s performance at a final three-hour exam. Students are advised to familiarise themselves with the conditions and assessment procedures set down by the Victorian Institute of Secondary Education (VISE) for each of the subjects in which examinations are to be taken.

HSC Subjects

Students are able to prepare themselves for external HSC examinations in the following subjects:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day-time</td>
</tr>
<tr>
<td>Accounting</td>
<td>YF0100</td>
<td>4</td>
</tr>
<tr>
<td>Applied Mathematics</td>
<td>YM0500</td>
<td>5</td>
</tr>
<tr>
<td>Asian History</td>
<td>YW0500</td>
<td>4</td>
</tr>
<tr>
<td>Australian History</td>
<td>YW0100</td>
<td>4</td>
</tr>
<tr>
<td>Biblical Studies</td>
<td>YW0600</td>
<td>4</td>
</tr>
<tr>
<td>Biology</td>
<td>YB0100</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry</td>
<td>YK0200</td>
<td>6</td>
</tr>
<tr>
<td>Classical Civilisation</td>
<td>YW0400</td>
<td>4</td>
</tr>
<tr>
<td>Legal Studies</td>
<td>YL0200</td>
<td>4</td>
</tr>
<tr>
<td>Economics</td>
<td>YE0100</td>
<td>4</td>
</tr>
<tr>
<td>English Expression</td>
<td>YG0200</td>
<td>4</td>
</tr>
<tr>
<td>English Literature</td>
<td>YG0300</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>YB0400</td>
<td>5</td>
</tr>
<tr>
<td>General Mathematics</td>
<td>YM0300</td>
<td>5</td>
</tr>
<tr>
<td>Geography</td>
<td>YW0300</td>
<td>4</td>
</tr>
<tr>
<td>Physical Science</td>
<td>YP0600</td>
<td>5</td>
</tr>
<tr>
<td>Physics</td>
<td>YP0300</td>
<td>6</td>
</tr>
<tr>
<td>Politics</td>
<td>YL0100</td>
<td>3</td>
</tr>
<tr>
<td>Pure Mathematics</td>
<td>YM0400</td>
<td>5</td>
</tr>
</tbody>
</table>

For detailed information on the content of HSC subjects, students should
acquire the HSC course description booklets for the current year. They are available through the VISE, 582 St. Kilda Road, Melbourne 3004.

**ART STUDIO PRACTICE (FOUNDATIONS IN ART)**
(to be offered subject to approval)

This is a program of short courses specifically devised for people who have the basic skills but limited access to and opportunity for participating in longer classes of a similar nature.

It is intended to develop studio operational and organisational skills which would help set up a cottage industry as well as revise and/or update these skills.

The following areas will be covered:
- Painting
- Printmaking
- History of Art
- Ceramics
- Marketing Methods

**BASIC RETAILING COURSE**

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Course Code: RCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retailing Basics RBO100</td>
<td>3</td>
</tr>
</tbody>
</table>

This one year course aims to provide inexperienced retail staff with a basic knowledge of retailing and with personal skills of retailing that will help them perform more effectively in their jobs and enhance their career prospects.

General areas of study covered:
- Customer Needs
- Product Knowledge
- Communication in Retailing
- Salesmanship
- Pricing and Credit
- Stock Control
- Security
- Merchandising
- Visual Display
- Promotions and Ticketing
- Advertising

The course is designed and supported by an industry based committee including the Retail Traders' Association of Victoria. On successful completion of the course, a certificate will be awarded by the Retail Traders' Association of Victoria and a statement of results issued by the Education Department.
VOLUNTARY YOUTH LEADERSHIP

This course is designed for people who are operating as voluntary youth leaders in youth organisations, or for people who wish to start a youth group or are contemplating becoming involved with a youth group.

The course aims to give the volunteer leader:
- confidence in their ideas and abilities;
- an understanding of the nature of groups and how groups operate;
- an awareness of the problems associated with adolescence;
- an awareness of leadership styles and leadership in the informal situation;
- assistance in developing aims for the group and planning a program to satisfy these aims;
- strategies for using the community as an effective resource.

The course will be of 12 weeks duration with 10 evening sessions of 2½ hours each and two evening sessions for field studies.

WAY IN (full-time)

This is a full-time program designed to prepare individuals for studies in HSC, TOP or any other TAFE course. WAY IN is for people wishing to improve their skills or educational qualifications in order to become eligible to study at higher levels. There are no entrance qualifications or age barriers.

The program will be offered for approximately 20 hours per week for 32 weeks of the year, with subjects from the Applied Science and General Studies area.

APPLIED SCIENCE PROGRAM:

English WA0100
Basic Mathematics-S WA1200
— an individual program can be developed
Biology WA0300
Chemistry WA0400
Physics WA0600
Study Skills
— taken in the first weeks to assist to develop some of the study habits and skills required.

GENERAL STUDIES PROGRAM:

English WA0100
Basic Mathematics-G WA0200
— an individual program can be developed
Introduction to You and Your Society WA0500
— a subject designed to give some background in sociology and psychology and to assist the student to understand himself/herself better in relation to others and the environment.
Australian Studies NW0200
— students who progress satisfactorily will be able to undertake this TOP subject in the second semester.
Study Skills
— taken in the first weeks to assist to develop essay writing, notetaking, textbook reading and other important skills and study habits.

FOUNDATIONS OF PROFESSIONAL WRITING
Course Code: EFO

This is a one-year course for people who have a yen for creative writing. The course is suitable for mature age people and those under 25 who see themselves as having completed their secondary education. Persons in employment who wish to improve their writing skills may find certain subjects in this course to be of special value to them. The course may be taken on a full-time and part-time basis.

Aim
The general aim of the course is to assist those who have a special interest in writing to acquire the basic tools that will enable them to pursue creative activities in that field.

The main emphasis in the course falls on the intellectual discipline which must be viewed as a prerequisite to creative work. A great deal of emphasis is given to the development of understanding and skills relevant to different forms of writing, and this is combined with emphasis on the development of literary taste and judgment, and on the study of ideas about human nature and the world which may be said to lie at the base of man’s cultural heritage.

SUBJECT SYNOPSES

Basic English Competence EF01
This subject provides a review of a number of principles from the areas of grammar, syntax, punctuation, and other mechanics of language, as well as discussion of and practice in the writing of good paragraphs, compositions, research papers, etc. (Three hours per week)

Communication Strategies EF02
The subject is concerned with various aspects of communication, and it is intended to assist students in their development as communication ‘strategies’. It entails an analysis of the elements of communication and an acquaintance with some of the subleties involved in persuasion and attitude change.

Emphasis will be placed on some aspects of the diffusion of communication. Interpersonal and face-to-face communication will be analysed. The theory of ‘role’ playing in group communication will be explored; the nature, functions and effects of the mass media will be analysed, and their scope to inform and persuade will be examined. (Three hours per week)
Film and Television Scripting EF03
This subject is designed to introduce the student to basic film and TV craft. It studies the special problems that face the script writer in the creation of character and narrative, and provides opportunity for exercises in the construction of scripts. (Three hours per week)

Imaginative Fiction EF04
This subject provides opportunity for analysis and the writing of short stories and novels. Different types of short stories and some basic types of novels are considered. Great emphasis is placed on creative exercises, and advice is given on procedures necessary for marketing creative writing. (Three hours per week)

Methodology EF05
In this subject, emphasis falls on the acquisition of correct methods relating to different forms of factual writing. The topics include book criticism, film criticism, writing and sub-editing for newspapers, writing for magazines, the writing of briefs, the preparation of reports, editing, etc. Tuition will be given by specialists whose expertise relates to the different types of writing studied. (Three hours per week)

Mythology and Symbolism EF06
The subject involves the study of myths and symbols in literature. The course endeavours to help students become aware of the continuity of appearance of mythological archetypes in contemporary guises. In order to do this, the course will necessarily involve an understanding of Jung's concept of archetypes and a study of mythological characters. Besides studying psychological descriptions of archetypes, the class will explore some of Joseph Campbell's work on archetypes and Frazer's work, The Golden Bough. A primary concern of the course will be illustrating to students how various archetypal figures and their characteristics remain unchanged in different ethnic, or cultural, or temporal contexts. (Three hours per week)

Psychology — Personality Theories
This is an introduction to the writings of depth psychologists, humanistic psychologists, and others who have been preoccupied with questions relating to the human personality. The main authors studied will be Freud, Rogers, Maslow and Laing. (Three hours per week)
SCHOOL OF INDUSTRIAL AND COMMERCIAL STUDIES

The School of Industrial and Commercial Studies is situated at 1068-1074 Dandenong Road, Carnegie, 3163, approximately two kilometres from the main campus. It has four teaching departments:

- Department of Materials Technology (Middle Level)
- Department of Electrical and Electronic Technology (Middle Level)
- Department of Mechanical Engineering (Middle Level)
- Department of Commerce

BASIC TRAINING FOR PRIVATE AGENTS, PROCESS SERVERS AND COMMERCIAL AGENTS

Course Code: CA1

This is a part-time course conducted for four hours, one evening per week over 12 weeks.

Aim

The course was designed to assist those persons wishing to apply for a licence under the Private Agents Act, or to assist those people already employed as Process Servers, Inquiry Agents, Commercial Agents and in allied industries.

The course will enable the students to acquire a thorough knowledge of relevant legislation, to develop skills in gathering and presenting information, to develop skills in successful office management and to gain a thorough understanding of communication processes.

Entrance Requirements

No specific educational requirements are necessary, but preference will be given to those students intending to practice under the Private Agents Act.

SUBJECT SYNOPSISES

The following areas of study will be covered:

Legislation

- Private Agents Act 1966
- Magistrates Court Act
- County Court Act
- Supreme Court Act
- Family Court Act
- Hire Purchase Act
- Workers Compensation Act

Code: CA0100

Report Writing

- How to write formal reports, summaries, introductions, conclusions and recommendations.
- How to compile bibliographies, drawings, charts and maps. How to record all information gathered and place it in logical order.

Code: CA0200
Communications  
Code: CA0300
How to be able to listen, analyse and evaluate spoken communication.
How to analyse potential causes of communication breakdown. How to recognise intra-personal elements in communication.

Office Management  
Code: CA0400
How to develop a knowledge of basic requirements for successful office management, eg. staff, records, basic accounting procedures.
Some aspects of industrial relations, word processing and reproduction of material will also be dealt with.

Assessment
There is no final examination. However, students will be assessed on performance in individual units as well as across the course as a whole. Students are expected to achieve a high standard of work within each unit before receiving a pass in the course.
Unit assessment will be based on the following:
— Assignments
— Group work
— Short unit tests

Department of Commerce
BUSINESS STUDIES — OFFICE TRAINING  
Course Code: EBI
This is a one-year, full-time course that provides practical training in office skills, for a shorthand typist, or a bookkeeper typist. Mature-age students who are taking the course to retrain may be able to complete it in six months.

Admission Requirements
A pass in English, and three other subjects at Year 11 level, or a minimum of one year after leaving school.

Award
Students who complete the course successfully are awarded a certificate.

<table>
<thead>
<tr>
<th>Subject name</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorthand/Typist</td>
<td></td>
</tr>
<tr>
<td>Shorthand</td>
<td>8</td>
</tr>
<tr>
<td>Typewriting</td>
<td>8</td>
</tr>
<tr>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>*Consumer Sociology</td>
<td>2</td>
</tr>
<tr>
<td>*Commercial Practice</td>
<td>2</td>
</tr>
<tr>
<td>Office Practice</td>
<td>2</td>
</tr>
<tr>
<td>Human Relations</td>
<td>2</td>
</tr>
</tbody>
</table>

68
This subject includes all bookkeeping processes, from business documents to trial balance and includes practice in the following: petty cash systems, bank reconciliation, payroll records and stock records. It also covers an appreciation of the processes involved in closing journal and ledger entries, profit and loss determination and balance day adjustments — stock, prepayments, accrued expenses and depreciation.

Business Calculations YE0200
The objective of this unit is to familiarise students with the type of mathematics used in the office. Topics include use of percentages, interest tables, metric system, terminology of the Stock Exchange, graphic presentation, and an elementary introduction to statistics.

Business English A YD0400
Business English B YX0400
The aim of this subject is to aid students in improving language skills that are likely to be of use and prove important in professional work. Students will be assisted in acquiring habits of clarity of thought and precision in the use of language.

The subject aims at the development of such skills as the ability to organise and convey ideas logically and effectively. It also aims at the development of skills related to proper presentation of written work.

Commercial Practice YX0300 (2 hours per week)
The emphasis in the course will be on the practical completion of bookkeeping tasks. These tasks will include working with documents, journals, ledgers and preparation of a trial balance. Other bookkeeping skills covered include bank reconciliation, petty cash and payroll.

Consumer Sociology YD0900
An examination of the relationship which exists between the individual and the law. The course looks at the consumer within society and his rights under the law, with special attention being given to the most recent legislation.

Everyday activities such as signing hire purchase agreements, taking
clothes to the laundry, ordering food in restaurants are looked at in relation to the law.

The opportunity will exist throughout the course to pursue individual interests.

**Human Relations A YD0500**  
**Human Relations B YX0500**

This course is designed to promote a greater understanding of human relationships through a study of elementary psychology. Areas for discussion will include personality development, perception, human needs, temperament and emotion and psychological adjustment.

**Office Practice A YD0800**  
**Office Practice B YX0800**

This course is designed to enable students to gain knowledge of the nature and organisation of the modern business as well as the organisation of the office itself and the procedures followed in the actual functioning of the office. Business procedures such as inward and outward mail, filing and indexing and the use of the telephone, composition of letters, duplicating, etc. are taken into account, and guest speakers have been arranged to demonstrate the use of switchboards, etc.

The course attempts to assist the student to understand better, fundamental procedures in use in most offices and to familiarise the student with what would be expected of the student in the working environment.

**Shorthand A YD0100**

The theory of the Pitman's system is fully covered with emphasis on accuracy, shortforms and phrasing. Emphasis is also placed on speed development and this is encouraged from the beginning of the course.

**Shorthand B YX0100**

Speed development is covered to a much greater extent. Students are required to transcribe from their notes at every opportunity. Audio equipment is used extensively with the use of speed tapes. It is hoped that a speed of at least 80 wpm is reached at the end of the course.

**Typewriting A YD0700**

Touch typing and rhythm is taught from the start and every aspect of theory is covered. Great emphasis is placed on accuracy. More facets of advanced typewriting are introduced once the keyboard has been mastered — e.g. setting out business letters, confused manuscripts, tabular work. Students also have some practical sessions on working with the dictaphone.

**Typewriting B YX0700**

A great deal of assignment work is given to students, using workbooks with letterheads, memo and other office forms. Composition of letters and memos are required and students need to use initiative to complete realistic
office tasks. More advanced work is also introduced at this stage such as typing legal documents, balance sheets, specifications, etc.

CERTIFICATE IN EDP (Operating and Coding)
Course Code: CO1

This is a one-year full-time, or three year part-time, course at Year 12 level. It is designed to provide practical training in computer operating and elementary programming. Students who complete this course successfully may apply for entry to the first year of the Bachelor of Applied Science (EDP). Exemptions are granted where appropriate.

Standard of Admission
Students are required to have obtained a pass in English, a non-terminal mathematics and three other subjects at Year 11 level.

Exemptions
Students who have obtained a pass in HSC English Expression will be exempt from English Expression GE01; an HSC pass in any mathematics subject will exempt students from Mathematics and Statistics MS01.

Course Structure

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programming DP0100 (full-time)</td>
<td>6</td>
</tr>
</tbody>
</table>
| or
| Computer Programming DP0200 (part-time) and |
| Computer Programming DP0300 |
| Operating Practices DX0100 | 4 |
| Data Processing Systems DE0100 | 3 |
| Mathematics and Statistics MS0100 | 4 |
| English Expression GE0100 | 4 |

SUBJECT SYNOPSIS

Computer Programming DP0100 (full-time)

A course of six hours of classes per week for two semesters. (Part-time students take DP0200/DP0300 instead of DP0100.)

Syllabus: Introduction to programming; types of languages, programming steps and techniques, basic problem solving techniques, program debugging, testing and documentation. Languages taught are BASIC, RPG and COBOL programming. A comparison is made of various languages and their uses.

Prescribed texts: Manufacturers' manuals as required.
Assessment: Unit tests and a combination of assignments and practical work throughout the year will be used for assessment purposes.
Computer Programming DP0200 (part-time)

A course of three hours of classes per week for two semesters.

Syllabus: Introduction to programming; types of languages, programming steps and techniques, basic problem solving techniques, program debugging, testing and documentation. BASIC programming, COBOL programming.

Prescribed texts: Manufacturers’ manuals as required.

Assessment: Unit tests and a combination of assignments and practical work throughout the year will be used for assessment purposes.

Computer Programming DP0300 (part-time)

A course of three hours of classes per week for two semesters.

Prerequisites: Computer Programming DP02.

Syllabus: COBOL programming, comparison of various languages and their uses. RPG Language.

Prescribed texts: Manufacturers’ manuals as required.

Assessment: Unit tests and a combination of assignments and practical work throughout the year will be used for assessment purposes.

Data Processing Systems DE0100

A course of three hours of classes per week for two semesters.

Syllabus: Significance and the need for data processing, the data processing cycle, basic business operations, simple business systems, e.g. payroll, order/billing, inventory.

An introduction to the functions and problems of modern data processing systems with emphasis on principles of computer systems management, systems analysis and design.

Prescribed texts: To be announced.

Assessment: A three hour examination at mid-year and a three hour final paper and a combination of assignments and practical work throughout the year will be used for assessment purposes.

English Expression GE0100

The program embodies such general aims as the broadening and enrichment of the student’s awareness of the world through the development of ability to read more rewardingly, to think and talk more cogently, and to write more clearly, relevantly and creatively.

More specific objectives entail the development of such skills as summarising, evaluating, and relating ideas one to another, as well as formulating, defending, and illustrating one’s point of view. Due emphasis is placed on the strengthening of formal skills, which implies attention to grammar, syntax, spelling, punctuation, paragraphing, and essay writing.

Operating Practices (DX0100)

A course of three hours of lectures and a one hour tutorial per week for two semesters.
Syllabus:
First Semester: The operating environment, the central processing unit, peripheral devices (principles and techniques for handling), off-line equipment, number systems. Tutorial emphasis is on manipulative skills.

Second Semester: Operating systems, batch/on-line systems, types of computers, communication, back-up. Tutorial emphasis is on interaction with the operating system.

The course is designed to provide students with the skills and confidence needed by trainee computer operators.

Assessment: A three hour examination at the end of each semester, assignments throughout the year and a practical examination at the end of the year.

Mathematics and Statistics MS0100

A course of four hours per week for two semesters.

Syllabus: Linear functions, inequalities and linear programming, matrices, network analysis, elementary probability, presentation of data, measures of location and dispersion, linear regression and correlation, tests of significance, Boolean Algebra, exponential and logarithmic functions.

Prescribed texts: To be announced.

References: To be announced.

Department of Materials Technology

CERTIFICATE OF APPLIED SCIENCE (Ceramics)

Course Code: HA

A middle level course that has been planned by a representative group of employers assisted by officers of the Education Department. It is designed to train:
- laboratory technicians,
- quality control supervisors,
- trainee supervisors and managers,
- field operators,
- technical and sales representatives.

The course requires four years part-time study for one half-day and one evening per week.

Entrance Standard

A satisfactory pass at Year 11 (Form 5) level (preferably including a science subject) and employment in a relevant field — clay products, vitreous enamel, glass, Portland cement, premixed concrete, concrete products. However, applicants who do not have the academic qualification, but are considered to be sufficiently mature and experienced to undertake the course successfully, may be admitted.

Qualifications Awarded

Students will be awarded a Certificate of Applied Science (Ceramics) after satisfactorily completing the course of 24 subjects. The course has also
been approved by the Institute of Ceramics, in UK, for admission to the technician grade of the Institute. Graduates are therefore entitled to apply to the Institute to use the letters, Tech I Ceram after their names.

Course Structure

An approved course comprises 24 units, of which 14 are compulsory (listed in Category 1, below) and ten are elective units, chosen from those listed in Category 2.

<table>
<thead>
<tr>
<th>Category 1 Code</th>
<th>Subject</th>
<th>Unit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM1200</td>
<td>Ceramic Calculations 1</td>
<td>1</td>
</tr>
<tr>
<td>CM2200</td>
<td>Ceramic Calculations 2A</td>
<td>1</td>
</tr>
<tr>
<td>CM2300</td>
<td>Ceramic Calculations 2B</td>
<td>1</td>
</tr>
<tr>
<td>CS1100</td>
<td>Ceramic Science 1</td>
<td>1</td>
</tr>
<tr>
<td>CS2100</td>
<td>Ceramic Science 2</td>
<td>1</td>
</tr>
<tr>
<td>CS3100</td>
<td>Ceramic Science 3A</td>
<td>1</td>
</tr>
<tr>
<td>CS3200</td>
<td>Ceramic Science 3B</td>
<td>1</td>
</tr>
<tr>
<td>CT1100</td>
<td>Ceramic Technology 1</td>
<td>1</td>
</tr>
<tr>
<td>CT2100</td>
<td>Ceramic Technology 2</td>
<td>2</td>
</tr>
<tr>
<td>CC1100</td>
<td>Communication &amp; Report. Writing 1A</td>
<td>1</td>
</tr>
<tr>
<td>CC1200</td>
<td>Communication &amp; Report. Writing 1B</td>
<td>1</td>
</tr>
<tr>
<td>CM1100</td>
<td>Computations</td>
<td>1</td>
</tr>
<tr>
<td>CX1100</td>
<td>Laboratory Techniques</td>
<td>1</td>
</tr>
</tbody>
</table>

| Introduction to Glass and Glazes | 1 |

<table>
<thead>
<tr>
<th>Category 2 Code</th>
<th>Subject</th>
<th>Unit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX2200</td>
<td>Ceramic Testing Techniques 1</td>
<td>1</td>
</tr>
<tr>
<td>CX3200</td>
<td>Ceramic Testing Techniques 2</td>
<td>1</td>
</tr>
<tr>
<td>CF2100</td>
<td>Concrete Technology 1</td>
<td>1</td>
</tr>
<tr>
<td>CF3100</td>
<td>Concrete Technology 2A</td>
<td>1</td>
</tr>
<tr>
<td>CF3200</td>
<td>Concrete Technology 2B</td>
<td>1</td>
</tr>
<tr>
<td>CG2100</td>
<td>Glass Technology 1</td>
<td>1</td>
</tr>
<tr>
<td>CG3100</td>
<td>Glass Technology 2</td>
<td>1</td>
</tr>
<tr>
<td>CT1300</td>
<td>Plastic Technology 1</td>
<td>1</td>
</tr>
<tr>
<td>CT2300</td>
<td>Plastic Technology 2</td>
<td>1</td>
</tr>
<tr>
<td>CD3100</td>
<td>Interpretation of Technical Drawings &amp; Sketches</td>
<td>1</td>
</tr>
<tr>
<td>CX3400</td>
<td>Mould Making (Ceramics)</td>
<td>1</td>
</tr>
<tr>
<td>CQ1100</td>
<td>Principles of Plant Operation</td>
<td>1</td>
</tr>
<tr>
<td>CQ3100</td>
<td>Quality Control</td>
<td>1</td>
</tr>
<tr>
<td>CT2400</td>
<td>Refractory &amp; Insulator Technology</td>
<td>1</td>
</tr>
<tr>
<td>CM2100</td>
<td>Statistics</td>
<td>1</td>
</tr>
<tr>
<td>XV4100</td>
<td>Supervision A</td>
<td>1</td>
</tr>
<tr>
<td>XV4200</td>
<td>Supervision B</td>
<td>1</td>
</tr>
<tr>
<td>CX2500</td>
<td>Instrumentation</td>
<td>1</td>
</tr>
<tr>
<td>CX3300</td>
<td>Work Project</td>
<td>Up to 4</td>
</tr>
</tbody>
</table>
CERTIFICATE OF APPLIED SCIENCE
(Construction Materials and Practice) Course Code: HM
A middle level course that has been planned by a representative group of employers assisted by officers of the Education Department. It has a strong geomechanics base and includes study in the fields of highway construction, concrete and concrete products, and soils.

Entrance Standard
A satisfactory pass at Form 5 level (preferably including a science subject) and employment in one of the relevant industries, or in an appropriate government organisation. However, applicants who do not have the academic qualification, but are considered to be sufficiently mature and experienced to undertake the course successfully, may be admitted.

Qualification Awarded
Students will be awarded a Certificate of Applied Science (Construction Materials and Practice) after satisfactorily completing the course of 24 units.

Course Structure
An approved course comprises 24 units, of which 18 are compulsory (listed in Category 1, below) and six are elective units, chosen from those listed in Category 2. The elective units are chosen by the student in consultation with his employer and the teaching staff.

Course Details
The course is offered part-time over four years involving one half day and one evening per week.

<table>
<thead>
<tr>
<th>Category 1 Code</th>
<th>Subject</th>
<th>Unit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC1100</td>
<td>Communication &amp; Report Writing IA</td>
<td>1</td>
</tr>
<tr>
<td>CC1200</td>
<td>Communication &amp; Report Writing IB</td>
<td>1</td>
</tr>
<tr>
<td>CM1100</td>
<td>Computations</td>
<td>1</td>
</tr>
<tr>
<td>CF2100</td>
<td>Concrete Technology 1</td>
<td>1</td>
</tr>
<tr>
<td>CD1100</td>
<td>Drafting Technology 1</td>
<td>1</td>
</tr>
<tr>
<td>CL2100</td>
<td>Geology (Materials)</td>
<td>1</td>
</tr>
<tr>
<td>CX1100</td>
<td>Laboratory Techniques</td>
<td>1</td>
</tr>
<tr>
<td>CS1300</td>
<td>Materials Science 1</td>
<td>1</td>
</tr>
<tr>
<td>CS2300</td>
<td>Materials Science 2</td>
<td>1</td>
</tr>
<tr>
<td>CH2100</td>
<td>Materials Technology</td>
<td>1</td>
</tr>
<tr>
<td>CX1400</td>
<td>Materials Testing Techniques 1</td>
<td>1</td>
</tr>
<tr>
<td>CX2400</td>
<td>Materials Testing Techniques 2</td>
<td>1</td>
</tr>
<tr>
<td>CT1400</td>
<td>Principles of Plant Operations (Materials)</td>
<td>1</td>
</tr>
<tr>
<td>CT1500</td>
<td>Soil and Rock Technology 1</td>
<td>1</td>
</tr>
</tbody>
</table>
CS1200 Construction Surveying 1
CM2100 Statistics 1
XV4100 Supervision A 1
XV4200 Supervision B 1

Category 2
CN1100 Bituminous Materials 1 1
CN2100 Bituminous Materials 2 1
CF3100 Concrete Technology 2A 1
XQ3100 Construction Operations 1
CD2100 Drafting Technology 2 1
CX2500 Instrumentation 1
CQ3100 Quality Control 1
CT1300 Plastics Technology 1 1
CT2300 Plastics Technology 2 1
CT2200 Rubber Technology 1
CX3300 Work Project 1
CT2500 Soils and Rock Technology 2 1
CF3200 Concrete Technology 2B 1
CS3300 Field Testing Monitoring 1

SUBJECT SYNOPSES

Bituminous Materials 1 CN1100
A course of one hour per week for two semesters or two hours per week for one semester.
Prerequisites: Nil.
Syllabus: Natural occurrence, manufactured bitumen, uses of bitumen, road making bitumen.
Assessment: Written tests and assignments.
References: To be announced.

Bituminous Materials 2 CN2100
A course of one hour per week for two semesters per week or two hours per week for one semester.
Syllabus: Sprayed seals, design, design of hot mix asphalt, types of asphalts, asphalt pavement design, sprayed sealing practice, manufacturing process, placing and compaction, quality control, specifications, etc.
Assessment: Written tests and assignments.
References: To be announced.

Ceramic Calculations 1 CM1200
A course of lectures involving two hours per week for one semester.
Prerequisite: Computations.
Syllabus: Basic arithmetic, dimensional change including shrinkage and loss of ignition. Density and S.G. porous, solids, suspensions, including Brongniart's formula.
Assessment: Cumulatively by written tests.
Reference:

**Ceramic Calculations 2A CM2200**

A course of lectures involving two hours per week for one semester.

**Prerequisite:** Ceramic Calculations 1.

**Syllabus:** Specific calculations including calibration of hydrometers, pyroplastic index, thermal expansion, body and batch calculations, ultimate and rational analysis.

**Assessment:** Cumulatively by written tests.

**Reference:** As for Ceramic Calculations 1.

**Ceramic Calculations 2B CM2300**

A course of lectures involving two hours per week for one semester.

**Prerequisite:** Ceramic Calculations 2A.

**Syllabus:** Glaze and batch calculations — formulae and use of chemical equations, calculations of recipes, fritted glazes, miscellaneous glaze and batch calculations.

**Assessment:** Cumulatively by written tests.

**Reference:** As for Ceramic Calculations 1.

**Ceramic Science 1 CS1100**

A course of lectures involving two hours per week for one semester or one hour per week for two semesters. Some practical work is also involved.

**Prerequisites:** Nil.

**Syllabus:** Chemistry: inorganic and organic, measuring scales, fundamental measurements, properties of matter.

**Assessment:** Written test(s) and assignment(s) and laboratory reports.

**Reference:**
CHERIM, S. M., Chemistry for Laboratory Technicians, Saunders, 1971.

**Ceramic Science 2 CS2100**

A course of lectures involving two hours per week for one semester or one hour per week for two semesters. Some practical work is also involved.

**Prerequisite:** Ceramic Science 1.

**Syllabus:** 1. Heat and Heat Transfer. 2. Geology: classification of rocks, faults, folds. 3. Mineralogy: common ceramic materials, silicate minerals including clays, feldspars, properties of minerals.

**Assessment:** Written tests and assignments.

**References:**
MARTIN, S. L., & CONNOR, A. K., Basic Physics, Vols 1, 2, 3, 10th ed., Whitcombe & Tombs, 1968.
Ceramic Science 3A CS3100

A course of lectures involving two hours per week for one semester or one hour per week for two semesters. Some practical work is also involved.

Prerequisite: Ceramic Science 2.

Syllabus: Physical changes of ceramic material at drying and firing temperature. Physical and structural properties of ceramic materials.

Assessment: Written tests and assignment work.

References:

Ceramic Science 3B CS3200

A course of lectures involving two hours per week for one semester or one hour per week for two semesters. Some practical work is also involved.

Prerequisites: Nil. May be taken concurrently with Ceramic Science 3A.

Syllabus: Chemical changes in ceramic materials at drying and firing temperature. Miscellaneous properties of ceramic materials including colour, thermal and electrical properties.

Assessment: Written tests and assignments.

Reference: As for Ceramic Science 3A.

Ceramic Technology 1 CT1100

A course of lectures involving two hours per week for one semester or one hour per week for two semesters. Some practical work is also involved.

Prerequisites: Nil.


Assessment: Written tests and assignments.

References:
Australian and Overseas Periodical Publications.

Ceramic Technology 2 CT2100

Two semesters of lectures for three hours per week on practical aspects.

Prerequisite: Ceramic Technology.

Syllabus: Body preparations: (a) porcelain bodies, (b) heavy clay bodies (c) casting clips, (d) table ware bodies. Glaze preparation — and problems associated with glazes. Fire clay refractories: (a) shaping process, (b) preparation and dry pressing, (c) properties of refractory materials. Kilns and Furnaces: techniques and applications of all kilns and furnaces used in
the ceramic industry, including instrumentation and pyrometry.

**Assessment:** Written tests and assignment work.

**References:**

**Ceramic Testing Techniques 1 CX2200**

A practical subject involving three hours per week for one semester.

**Prerequisites:** Nil.

**Syllabus:** Sieve analysis, moisture contents, loss on ignition, drying and firing shrinkage, soluble salts, efflorescence, density and S.G., viscosity.

**Assessment:** Satisfactory completion of practical work in conjunction with written assignments.

**References:** Laboratory notes. Australian Standards as advised.

**Ceramic Testing Techniques 2 CX3200**

A practical subject involving three hours per week for one semester.

**Prerequisite:** Ceramic Testing Techniques 1.

**Syllabus:** Plasticity, particle size, porosity, thermal analysis, pyroplastic index, thermal expansion, determination of calcium and magnesium.

**Communication and Report Writing CC1100 and CC1200**

**Prequisites:** Nil.

**Syllabus:** Communication Theory; technical report writing techniques and composition; oral reporting; discussion skills; interviewing techniques, audio-visual communications, memo writing; letter writing, graphic communication.

**Assessment:** Assessment of work will be on a cumulative basis which will include a major technical report.

**Prescribed text:** Assigned articles plus material and lecture notes.

**Computations CM1100**

A course of one hour per week for two semesters or two hours per week for one semester.

**Prerequisites:** Nil.

**Syllabus:** Basic mathematics, arithmetic, algebra, graphs, aids to computations.

**Assessment:** Cumulative written tests.

**Reference:**

**Concrete Technology 1 CF2100**

A course of one hour per week for two semesters or two hours per week for one semester.
**Prerequisites:** Nil.

**Syllabus:** Concrete fundamental, constituent materials, production and handling, ready mixed concrete, quality control mix design, setting and finishing times, hot and cold weather problems and remedies, testing.

**Assessment:** Practical work: at least three course assignments and a one and a half hour test.

**Reference:**

**Concrete Technology 2A CF3100**

A course of one hour per week for two semesters or two hours per week for one semester.

**Prerequisites:** Concrete Technology 1 and Computations Statistics unless studied concurrently.

**Syllabus:** Cement manufacture, analysis and quality control, Portland cement, admixtures, concrete mix design methods for strength, workability, durability, particular properties.

**Assessment:** By at least three in-course assignments.

**References:** As listed in Concrete Technology 2B.

**Concrete Technology 2B CF3200**

A course of one hour per week for two semesters or two hours per week for one semester.

**Prerequisite:** Concrete Technology 2A.

**Syllabus:** Types of concrete, architectural concrete, concrete masonry and tile manufacture, pipes, polymer concrete and epoxy bonding or repair, hot concrete, low pressure, steam curing.

**Assessment:** By at least three in-course assignments.

**Reference:**

**Construction Operations XQ3100**

A course of one hour per week for two semesters or two hours per week for one semester.

**Prerequisites:** Nil.

**Syllabus:** Earth and rockfill embankments, pavements, concrete and steel structures, mass concrete, mining explosives, marine works, railways, pipelines.

**Assessment:** Assignment work.

**References:** As announced.

**Drafting Technology 1 CD1100**

A course of two hours per week for one semester.

**Prerequisites:** Nil.
Syllabus: Basic drafting practice, cartographic interpretation.
Assessment: Satisfactory completion of assignments.

Drafting Technology 2 CD2100
A course of two hours per week for one semester.
Prerequisite: Drafting Technology 1.
Syllabus: Engineering drawings, architectural drawings, mechanical and electrical drawings.
Assessment: Satisfactory completion of assignments.
References: As for Drafting Technology 1.

Field Testing and Monitoring CS3300
A course of two hours per week for one semester.
Prerequisite: Instrumentation CX2500 should be studied concurrently with this subject.
Syllabus: Field testing techniques for soils, steels, concrete and rock: monitoring techniques for structures, embankments and slopes, foundation pavements, mines and tunnels.
Assessment: Written tests and assignments.
References:

Glass Technology 1 CG2100
A course of two hours per week for one semester.
Prerequisite: Ceramic Science 1.
Syllabus: Glass history, glass-forming oxides, glass composition, glass formation, melting systems, forcing processes, physical properties, batching and preparation, principles of furnace control, interpretation of quality and furnace performance.
Assessment: By progressive written tests and assignments.
References: To be announced.

Glass Technology 2 CG3100
A course of two hours per week for one semester. This subject combines the former Glass Technology 2A & 2B.
Prerequisite: Glass Technology 1.
Syllabus: Batching systems, evaluation, chemistry of glass-making, petrographic analysis, modifying glass structure, flow of glass in tanks, crystallisation in glass; fuel energy requirements for glass melts, new applications for glass-forming systems.
Assessment: By progressive written tests and assignments.  
References: To be announced.

Instrumentation CX2500
A course of two hours per week for one semester.  
Prerequisite: Material Science 1 or Ceramic Science 1.  
Syllabus: Measurements of force, pressure and flow, electronic instrumentation.  
Assessment: Tests and assignments.  
References: To be announced.

Interpretation of Technical Drawings and Sketches CD3100
A course of lectures involving one hour per week for two semesters or two hours per week for one semester.  
Prerequisites: Nil.  
Assessment: Assignments.  
References:  
COUNTRY ROADS BOARD, VICTORIA, Drafting Manual, CRB, 1968.

Geology CL2100 (Materials)
A course of one hour per week for two semesters or two hours per week for one semester.  
Prerequisites: Nil.  
Syllabus: The earth — origin, time scales, geological cycle, origin and classification of rocks, engineering significance, physiography, geological maps, mineralogy.  
Assessment: Written test(s) and assignments.  
References:  

Laboratory Techniques CX1100
A course of three hours per week for one semester.  
Prerequisites: Nil, though it is recommended that Material Science 1 be undertaken concurrently.  
Syllabus: Handling and storage of chemicals, first aid, sampling; preparation for laboratory use of balances and glassware; filtration, gravimetric procedures, volumetric procedures.
Assessment: Written tests, assignments and practical work.

References:
CHERIM, S. M., Chemistry for Laboratory Technicians, Saunders, 1971.

Materials Science 1 CS1300
A course of one hour per week for two semesters or two hours per week for one semester.
Prerequisites: Year 11 (Form 5) Science. Extra reading is recommended for candidates who have not reached this level.
Syllabus: Chemistry: inorganic and organic, measuring scales, measurement, fundamental measurements, properties of matter.
Assessment: Written test(s), assignment(s) and laboratory reports.
Reference:
CHERIM, S. M., Chemistry for Laboratory Technicians, Saunders, 1971.

Materials Science 2 CS2700
A course of one hour per week for two semesters or two hours per week for one semester.
Prerequisite: Material Science 1.
Syllabus: Electrochemistry, optics, sound, heat and heat transfer, electronics, hydraulics.
Assessment: Written test(s), assignment(s) and laboratory reports.
Reference:

Materials Technology CH2100
A course of one hour per week for two semesters or two hours per week for one semester.
Prerequisites: Nil.
Syllabus: Use and properties of engineering materials, thermal equilibrium diagrams, nature and properties and deformation and fracture, failure and selection of engineering materials.
Assessment: Written test and assignments.
Reference:

Materials Testing Techniques 1 CX1400
Prerequisites: Nil.
Syllabus: Test procedures and techniques for soils, metals, concrete materials, concrete and asphaltic concrete.
Assessment: Class and laboratory work.
Reference:

**Materials Testing Techniques 2 CX2400**
A course of three hours per week for one semester.
*Prerequisites:* Materials Testing Techniques 1.
*Syllabus:* Further test procedures and techniques for engineering materials including compaction, triaxial tests, field tests, epoxy resins, etc.
*Assessment:* Class and laboratory work.
*Reference:* As for Part 1.

**Mouldmaking (Ceramics) CX3400**
A course of lectures involving three hours per week for one semester.
*Prerequisites:* Nil.
*Syllabus:* Plaster technology, modelling tools and associated equipment, mouldmaking, case making, hand carved moulds, moulds for cup and plate making, drying of moulds.
*Assessment:* By cumulative assessment.
*References:* To be announced.

**Plastics Technology 1 CT1300**
A course of two hours per week for one semester.
*Prerequisites:* Materials Science 1 or Ceramic Science 1.
*Syllabus:* Plastic distinguishing features, major elements, macromolecular, thermo-plastics, thermo-setting, additives, cross linking by catalysts, epoxies, urethanes, polyesters.
*Assessment:* Tests and assignment work.
*References:*

**Plastics Technology 2 CT2300**
A course of two hours per week for one semester.
*Prerequisite:* Plastics Technology 1.
*Syllabus:* Methods of working, properties and application, laboratory work, safety.
*Assessment:* Tests and assignments.
*Reference:* As for Plastics Technology 1.

**Principles of Plant Operation (Materials) CT1400**
A course occupying two hours per week for one semester.
*Syllabus:* Plant operations, materials handling, storage of raw materials, supply and use of power, waste disposal, safety.
*Assessment:* Written tests and assignments.
Reference:

**Principles of Plant Operations (Ceramics) CQ1100**

A course of lectures involving one hour per week for two semesters or two hours per week for one semester.

**Prerequisites:** Nil.

**Syllabus:** Siting of the factory, factory layout, storage facilities, various conveying systems, study of outlay for capital equipment related to subcontracting. Automation, plant replacement. Maintenance procedures, dust control, recycle procedures, pollution. Handling Equipment.

**Assessment:** Assignment work.

**References:**

**Quality Control CQ3100**

A course of two hours per week for one semester.

**Prerequisites:** Computations and Statistics.

**Syllabus:** Introduction to quality control, importance of quality control, product control, process control, tolerances, classification defects, quality improvement, cost of quality.

**Assessment:** Written tests and assignments.

**References:**

**Refractory and Insulator Technology CT2400**

A course of lectures involving one hour per week for two semesters or two hours per week for one semester.

**Prerequisites:** Nil.


**Assessment:** Assignment work.

**References:**
Rubber Technology CT2200
This course will be offered if there is sufficient demand for it. Students interested should inquire at the Department of Materials Technology.

Soil and Rock Technology 1 CT1500
A course occupying two hours per week for one semester.
Prerequisite: Geology CL21.
Syllabus: Nature of soils and rocks, properties of soils and rocks, soil and rock as engineering materials, testing soils and rocks for engineering purposes.
Assessment: Written tests and assignments.
References:

Soil and Rock Technology 2 CT2500
A course occupying two hours per week for one semester.
Prerequisite: Soil and Rock Technology 1 CT15.
Syllabus: Soil properties and testing techniques, rock properties and testing techniques, design concepts, site investigations, compaction, construction control, stabilisation.
Assessment: Written tests and assignments.
References:

Statistics CM2100
A course of two hours per week for one semester.
Prerequisite: Presentation of statistical data, frequency distributions and their properties, sample theory, testing hypotheses.
Assessment: Written tests.
Reference:

Supervision A XV4100
A course of two hours per week for one semester.
Prerequisites: Nil.
Syllabus: Functions of the supervisor, journal articles criticism, organisations, problem solving, personnel selection and induction procedures.
Assessment: Written assignments, class participation in group activities.

References:

Supervision B XV4200
A course of two hours per week for one semester.
Prerequisite: Supervision 1A.
Syllabus: Case studies, group problem solving, job satisfaction, leadership, counselling etc.
Assessment: As for Supervision 1A.
References: As for Supervision 1A.

Work Project CX3300
To be arranged with the lecturer.

CERAMIC CASTING AND GLAZING TECHNIQUES
Course Code: NP1
The course is designed to make students aware of the production processes of slipcasting and the effective use of various glazing techniques used in the manufacture of ceramic products. Students make various functional products, using different glazing and decorating techniques. The course requires three hours practical work per week for one year. Subject Code CX1300.

CERAMIC MOULDMAKING
Course Code: NP1
The course introduces students to the basic techniques of modelling and mouldmaking; it requires four hours theoretical and practical work per week for three semesters.

The course comprises two subjects, Mouldmaking 1 CX1200 (studied during the first year) and Mouldmaking 2 CX1900 which is a continuation of Mouldmaking 1 at a more advanced level. For details of the syllabus covered by the course, please contact the school Administrative Officer on ext 2052.

CERTIFICATE OF POLICE STUDIES
Course Code: CD
The course is designed to equip students with skills necessary for police work, namely:
- to interact with others;
- to make informal and independent decisions;
- to write formal and informal reports;
- to follow instructions;
- to apply laws with discretion.

Admission to Course
This course, which involves two years part-time study, is for serving
members of police forces, or other approved security organisations. Students must have at least two years experience in the field.

Course Contents
The course includes instruction in basic forensic science and studies of psychological and sociological phenomena to help students understand aspects of social networks and human relations relevant to police work. It also includes report formats, and practice in the concise and accurate use of language.

For details of the syllabus covered by the subjects that comprise the course, see the subject synopses included in the Middle Level Certificate Courses section of this handbook.

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code</th>
<th>Unit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Behavioural Studies XS0200</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Communication and Report Writing 1A CC1100</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication and Report Writing 1B CC1200</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Forensic Science XK2100</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Supervision A XV4100</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Supervision B XV4200</td>
<td>1</td>
</tr>
</tbody>
</table>

Behavioural Studies XS0200
A course of three hours of lectures per week for two semesters.

Prerequisites: Nil.

Syllabus: Personality, heredity factors, environmental factors. Needs and their satisfaction, job satisfaction, goals, conflicts, frustration.

Assessment: Assessment of work will be on a cumulative basis and may include group exercises, role plays, class and home assignments.

Prescribed texts:

Communication and Report Writing CC1100 and CC1200

Prerequisites: Nil.

Syllabus: Communication Theory; technical report writing techniques and composition; oral reporting; discussion skills; interviewing techniques, audio-visual communications; memo writing; letter writing, graphic communication.

Assessment: Assessment of work will be on a cumulative basis which will include a major technical report.

Prescribed text: Assigned articles plus material and lecture notes.
References:

Forensic Science XK2100
A course of two hours per week for two semesters.
Prerequisite: Nil.
Syllabus: Impressions, photography, sketching and drawing, examination of documents, ballistics, finger-printing, elementary serology, matching of exhibits.
Assessment: Satisfactory completion of set practical work.
Prescribed texts: To be announced.

Supervision A XV4100
A course of two hours per week for one semester.
Prerequisites: Nil.
Syllabus: Functions of the supervisor, journal articles criticism, organisations, problem solving, personnel selection and induction procedures.
Assessment: Written assignments, class participation in group activities.
References:

Supervision B XV4200
A course of two hours per week for one semester.
Prerequisite: Supervision 1A.
Syllabus: Case studies, group problem solving, job satisfaction, leadership, counselling etc.
Assessment: As for Supervision 1A.
References: As for Supervision 1A.

TRADE TECHNICAL ORIENTATION PROGRAM
Course Code: OT1
Purpose
The purpose of this program is to provide an opportunity for a student with little or no prior experience in trades vocational studies to undertake a course of basic study in a selected trade, while at the same time, experience other trades. Normal entry is post Year 10 (Form 4).
Academic studies are included in the program and students receive a thorough grounding in mathematics, general science and humanities.
Several options are open to the student on completion of the one-year program:

- Undertaking an apprenticeship, either in the student’s selected trade, or in another trade in which he has gained experience;
- Undertaking a middle-level (Certificate of Technology) course; or
- Undertaking a Tertiary Orientation Program (TOP) which can lead to a tertiary course.

**Trades**

The program covers six trade streams:

- Building Studies
- Electrical Practices
- Fitting and Machining
- Plumbing and Sheetmetal
- Metal Fabrication and Welding
- Basic Electronics

**First and Second Term Trade Subjects**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Studies Orientation</td>
<td>XB0100</td>
</tr>
<tr>
<td>Electrical Practices Orientation</td>
<td>XE0100</td>
</tr>
<tr>
<td>Fitting and Machining Orientation</td>
<td>XF0100</td>
</tr>
<tr>
<td>Metal Fabrication and Welding Orientation</td>
<td>XW0100</td>
</tr>
<tr>
<td>Plumbing and Sheetmetal Orientation</td>
<td>XP0100</td>
</tr>
<tr>
<td>Electronics Orientation</td>
<td>XR0200</td>
</tr>
</tbody>
</table>

The above six subjects are designed to introduce students to that particular trade area. Students study three of these subjects in the first term, and three in the second. Each subject is four hours per week.

**Third Term Subjects**

Each subject occupies at least eight hours per week. The syllabus includes theoretical and practical work.

Students select one of the six listed trades:

- Building Studies
- Electrical Practices
- Fitting and Machining
- Metal Fabrication and Welding
- Plumbing and Sheetmetal
- Basic Electronics

Concurrently with trade studies students receive academic studies as below:

**First Semester Academic Subjects:**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 1T</td>
<td>XM0100</td>
</tr>
<tr>
<td>Science 1T</td>
<td>XK0100</td>
</tr>
<tr>
<td>English 1T</td>
<td>XX0100</td>
</tr>
<tr>
<td>Graphics</td>
<td>XB0900</td>
</tr>
</tbody>
</table>

**Second Semester Academic Subjects:**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 2T</td>
<td>XM0200</td>
</tr>
<tr>
<td>Science 2T</td>
<td>XK0200</td>
</tr>
</tbody>
</table>
SUBJECT SYNOPSES

English 1T — XX0100
A unit of four hours per week for one semester.
Prerequisite: A satisfactory completion of Year 10 English.
Syllabus: Comprehension and note taking, report writing, oral communication, use of audiovisual equipment, book appreciation and reporting, grammar.
Assessment: Cumulative assignments.
Prescribed text: To be advised.

English 2T — XX0200
A unit of four hours per week for one semester.
Prerequisite: English 1T.
Syllabus: Debating, creative writing, extension of report writing, job application preparation, public speaking.
Assessment: Assignments, cumulative.
Prescribed texts: Novels of student choice.

Graphics — XB0900
A unit of three hours per week for two semesters.
Prerequisites: None.
Syllabus: Reading and interpretation of drawings, electrical building and mechanical drawings, orthographic, isometric and simple perspective illustrations.
Assessment: Cumulative assignments.
Prescribed text: To be advised.

Mathematics 1T — XM0100
A unit of four hours per week for one semester.
Prerequisite: A satisfactory completion of Year 10 Mathematics.
Syllabus: Surds, indices, trigonometry, vectors, simultaneous equations, measurements, factorisation, quadratic equation and graphs.
Assessment: Cumulative tests and assignments.
Prescribed texts:
Leaving Mathematics C — Core notes.
Leaving Mathematics C — Unit notes (Part 1).

Mathematics 2T — XM0200
A unit of four hours per week for one semester.
Prerequisite: Mathematics 1T.
Syllabus: Transposition of formula, indices, cartesian and polar co-
ordinates, three dimensional trigonometry, extension of graphs, simple and compound interest, arithmetic and geometric progression and areas of irregular figures.

Assessment: Cumulative tests and assignments.

Prescribed texts:
Leaving Mathematics — Core notes.
Leaving Mathematics — Unit notes part 1.

Science 1T — XK0100

A unit of four hours per week for one semester.

Prerequisite: A satisfactory completion of Year 10 Science.

Syllabus: Mechanics — physical quantities and units; vectors and scalar quantities; velocity and acceleration; friction, work, power and energy. Electricity — electrical instruments; electrical circuits; electrical energy and power. Physical states of matter — kinetic theory of matter; solution. Atomic Physics — atomic structure; radioactivity.

Assessment: Cumulative tests, assignments and practical work.

Prescribed text:
ADDICOAT, R. R., Basic Chemistry and Physics.

Science 2T — XK0200

A unit of four hours per week for one semester.

Prerequisite: Science 1T.


Assessment: Cumulative tests, assignments and practical work.

Prescribed text:
ADDICOAT, R. R., Basic Chemistry and Physics.

Department of Mechanical Engineering

CERTIFICATE OF TECHNOLOGY

The Middle Level Engineering Certificates of Technology are job-orientated and highly flexible with problem identification and solving an important characteristic.

The Certificate of Technology courses have been developed to meet the specific needs of industry and are designed around the part-time student.

Entrance Prerequisites

The prerequisites for admission to a course are either:

a. satisfactory completion of Year 11 (Form 5) including passes in English, Mathematics, Science or equivalent qualification, or,
b. sufficient experience and maturity to successfully undertake the course.

Course Availability
All courses are available on a part-time basis. Stages 1 and 2 can be studied on a full-time basis over one full year.

Full-time students must pursue relevant industrial experience before starting Stages 3 and 4. Each stage is usually of one semester (full-time) or one year (part-time) duration.

Award
A Certificate of Technology will be awarded on successfully completing:

a. 30 units; and
b. a minimum of two years relevant industrial experience

Graduates are eligible to become members of the Australian Institute of Engineering Associates.

CERTIFICATE OF TECHNOLOGY
(Mechanical & Mechanical Design Drafting)

Courses Available
Two certificate courses are offered:
1. Certificate of Technology — Mechanical
2. Certificate of Technology — Mechanical Design Drafting.

The Certificate of Technology Mechanical has basic core subjects with electives offered in the final stage. The Certificate of Technology Mechanical Design Drafting is a specific course and all units are compulsory. Both certificates are offered in four stages.

Students who pass the first two stages of a certificate may proceed to a degree course at the School of Engineering in the Advanced Education Division of CIT provided they do a bridging unit in mathematics.

Full-time Courses
The school offers two stages of the courses on a full-time basis over one year. The final stages are usually completed on a part-time basis in subsequent years during which industrial experience is also gained.

In some instances, students may be required to undertake bridging programs in Welding and Machine Shop Practice to enable them to cope with the requirements of the course.

Part-time Courses
All subjects are available on a part-time basis. They are usually arranged so that studies can be carried out:
1. day release basis
2. in the evenings
3. by a combination of day release and evenings.

CERTIFICATE OF TECHNOLOGY
(Mechanical Design Drafting) Course Code: HD
Stages 3 and 4 of this course are normally studied on a part-time basis.
<table>
<thead>
<tr>
<th>Stage Subject</th>
<th>Subject Code</th>
<th>Hours per week full-time</th>
<th>One Semester</th>
<th>One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Design 1A</td>
<td>ID1000</td>
<td>(4/1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Design 1B</td>
<td>ID2000</td>
<td>(4/2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng. Materials &amp; Processes 1A</td>
<td>EM1000</td>
<td>(4/1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Drafting 1A</td>
<td>DR1000</td>
<td>(6)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Maths 1A</td>
<td>MS1000</td>
<td>(2)</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Eng. Principles 1A</td>
<td>EP1000</td>
<td>(6/1)</td>
<td></td>
<td>3/1</td>
</tr>
<tr>
<td>Welding Principles (Bridging unit)</td>
<td>WP3000</td>
<td>(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Design for Economic M’f. 1A</td>
<td>DE3000</td>
<td>(2)</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Mechanical Design 1A</td>
<td>DN3000</td>
<td>(4/1)</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Mechanical Design 1B</td>
<td>DN4000</td>
<td>(4/2)</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>Mechanical Drafting 2A</td>
<td>DR3000</td>
<td>(6)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Applied Mechanics 1A</td>
<td>AM3000</td>
<td>(4/1)</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Applied Mechanics 1B</td>
<td>AM4000</td>
<td>(4/2)</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>Properties of Materials 1A</td>
<td>PM3000</td>
<td>(2)</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Elec’l Machine Applications 1A</td>
<td>EC3000</td>
<td>(2)</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>Fluid Machinery &amp; Applications 1A</td>
<td>FM5000*</td>
<td>(2)</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>Machine Shop Practices (Bridging units)</td>
<td>TX1800</td>
<td>(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maths 2H (Optional Bridging unit)</td>
<td>XM2100</td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Design for Economic M’f. 2A</td>
<td>DE5000*</td>
<td>—</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Mechanical Design 2A</td>
<td>DN5000*</td>
<td>—</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Mechanical Design 2B</td>
<td>DN6000*</td>
<td>—</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>Applied Mechanics 2A</td>
<td>AM5000*</td>
<td>—</td>
<td></td>
<td>2/1</td>
</tr>
<tr>
<td>Applied Mechanics 2B</td>
<td>AM6000*</td>
<td>—</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>Thermodynamics &amp; Heat Transfer 1A</td>
<td>TH5000*</td>
<td>—</td>
<td></td>
<td>2/2</td>
</tr>
<tr>
<td>4. Design for Economic M’f. 3A</td>
<td>DE7000*</td>
<td>(2/1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design 3A</td>
<td>DN7000*</td>
<td>—</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Design 3B (Specialist Unit)</td>
<td>DN8100</td>
<td>—</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Students to choose one of:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Products &amp; Mechanical Plant</td>
<td>DN8200</td>
<td>—</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>(b) Structures</td>
<td>DN8300</td>
<td>—</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Key: 4/1 indicates four hours per week for the first half of a semester or year, etc., as appropriate. 4/2 indicates four hours a week for the second half. *Details of syllabuses not available at the time this handbook went to print.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CERTIFICATE OF TECHNOLOGY
(Mechanical)  
Course Code: HH

Stages 3 and 4 of this course are normally studied on a part-time basis.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Subject</th>
<th>Subject code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>full-time</td>
<td>part-time</td>
</tr>
<tr>
<td>1 &amp; 2</td>
<td>Communication and Report Writing</td>
<td>XC1800</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Applied Electricity 1H</td>
<td>XE1800</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physics 1H</td>
<td>XP1800</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Materials and Processes 1H</td>
<td>XA2800</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 1H</td>
<td>LH1100</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drafting 1H</td>
<td>LA1100</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 2H</td>
<td>LH2100</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Mathematics 2H</td>
<td>XM2100</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drafting 2AK</td>
<td>LB2100</td>
<td>6</td>
</tr>
<tr>
<td>3 &amp; 4</td>
<td>Applied Heat 1H</td>
<td>LG3800</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 3H</td>
<td>LH3800</td>
<td>—</td>
</tr>
</tbody>
</table>

Plus four electives to be chosen from the following approved subjects.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Subject code</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Electricity 2H</td>
<td>XE2800</td>
<td>3</td>
</tr>
<tr>
<td>Mechanical Design 1H</td>
<td>LA3800</td>
<td>3</td>
</tr>
<tr>
<td>Applied Heat 2H</td>
<td>LG4800</td>
<td>3</td>
</tr>
<tr>
<td>Applied Fluid Power</td>
<td>LF4800</td>
<td>3</td>
</tr>
<tr>
<td>Refrigeration and Air Conditioning</td>
<td>LN4800</td>
<td>2</td>
</tr>
<tr>
<td>Supervision 1H</td>
<td>XD4800</td>
<td>2</td>
</tr>
</tbody>
</table>

**SUBJECT SYNOPSES**

**Applied Electricity 1H XE1100 (semester) XE1800 (whole year)**

A course of lectures for seven hours per week for one semester, or three hours per week for one year.

*Prerequisite:* Year 11 (Form 5) mathematics and physics.

*Syllabus:* Basic electrical fundamentals, network analysis, magnetism, instruments and measurements, electromagnetism, electrostatics, EMF sources, AC fundamentals.

*Assessment:* Final examination and assignments.

*References:*


Applied Heat 2H LC4800

**Prerequisite:** Applied Heat 1H.

**Syllabus:** Non-flow energy equation. The steady flow energy equation and its application to boilers, air compressors and fans. Properties of steam — Rankine cycle, superheating reheating, critical and supercritical cycles on h-s chart. Boiler plant — fire tube and water tube boilers. Package boilers. Functions of superheater, economiser, air heaters and feed pumps. Refrigeration — vapour compression cycles, p-h chart flow diagram, compressor work, coefficient of performance capacity and power requirements, cooling towers, combustion types of fuels and ultimate analysis.

**Assessment:** Cumulative by assignment and approved practical work.

**Prescribed text:**

Applied Fluid Power LF4800

A course of study of three hours a week including practical work designed to give the student an introduction to hydraulics and pneumatics, including basic items of equipment, industrial applications and circuit design.

**Syllabus:** Compressed air theory, air compressors, compressed air systems, air tools, pneumatic circuit design. Fluid mechanics, hydraulic components including directional control, pressure control, and flow control valves, pumps and actuators, servo-system, fluid logic, hydraulic circuit design.

**Assessment:** Cumulative by assignment and approved practical work.

**References:**

Applied Heat 1H LG3100 (semester) LG3800 (whole year)

**Prerequisite:** Nil.

Assessment: Cumulative by assignment and practical work.

Prescribed Text:

References:

Applied Heat 2H LC4800

Prerequisite: Applied Heat 1H.


Assessment: Cumulative by assignment and approved practical work.

Prescribed text:

Reference:

Applied Mechanics 1A AM3000

Sixteen hours of classroom work aimed at introducing students to the principles of strength of materials and their application to basic beam design including the use of AS1250.

Syllabus: Nature of forces, stress, strain, elasticity, modulus of rigidity, Poisson’s Ratio, stress concentration, fatigue, beams, shear force and bending moment diagrams, beam theory, selection of simply supported beams, deflection of beams.

Assessment: Through successful completion of classroom and practical work plus a three hour examination.

Applied Mechanics 1B AM4000

Sixteen hours of classroom work aimed at enabling students to analyse and design columns to understand and apply the principles of combined stresses to become familiar with helical coil springs and cams.

Syllabus: Axially loaded columns, use of column equations, eccentrically loaded columns, torsion of shafts, shafts subject to bending only, combined stresses, members subject to combined loadings, Equivalent Torque and Equivalent Bending Moment equations, coiled compression springs, cams.

Assessment: Through successful completion of classroom and practical work plus a three hour examination.
Applied Mechanics 1H LH1100 (semester) LH1800 (whole year)

Prerequisites: Nil.

Syllabus: Resolution of forces, moments and couples, principles of equilibrium, solution of framework by graphical and analytical methods, linear and angular motion, work and energy, loading of beams, shear-forces, bending moment and thrust diagrams. Stresses, bending stresses in beams, strain, Young's modulus, bulk modulus of rigidity, Poisson's ratio. Properties of timber, methods of joining, uses of concrete; methods of reinforcing, use of ferro-cement products.

Assessment: Internal, including assignment and approved practical work.

References:

Applied Mechanics 2H LH2100 (semester) LH2800 (whole year)

Prerequisites: Mechanics 1A and 1B.


Assessment: Cumulative by assignment and practical work.

Reference: As for Applied Mechanics 1H.

Applied Mechanics 3H LH3100 (semester) LH3800 (whole year)

Prerequisite: Applied Mechanics 2H.

Syllabus: Combined stresses including Mohr's circle and theories of failure. Design of short beams, brakes, clutches and power screws, lubrication, bearing, belt drives, spur gearing and gear trains, epicyclic gearing, velocity and acceleration diagrams for linkages, flywheels and governors, impulsive forces vibration and critical speeds of shafting, special topics.

Assessment: Cumulative by assignment and approved practical work.

References:

Communication and Report Writing XC1800

Prerequisite: Nil.

Syllabus: Communication Theory; technical report writing techniques and composition; oral reporting; discussion skills; interviewing techniques,
audio-visual communications; memo writing; letter writing, graphic communication.

Assessment: Assessment of work will be on a cumulative basis which will include a major technical report.

Preseibed text: Assigned articles plus material and lecture notes.

**Electrical Machine Applications 1A EC3000**

Thirty two hours of classroom work aimed at enabling the student to become familiar with the selection of electrical equipment commonly associated with mechanical plant and gain a knowledge of power supplies and regulations governing the connection of mechanical plant thereto.

**Syllabus:** Elementary generators, d.c. generators, d.c. motors and starters, a.c. generators, a.c. motors and starters, transformers, control equipment, selection of motors, installation regulations.

**Assessment:** Through assignments and a two hour examination.

**Engineering Materials and Processes 1A EM1000**

Thirty two hours of classroom and laboratory work aimed at giving the student an understanding of the properties and uses of engineering materials and the effects of heat treatment.

**Syllabus:** Properties of metals, non-ferrous metals, plain carbon steels, alloying elements, alloy steels, cast irons, heat treatment of steel, stress relieving, age hardening, work hardening, hot and cold working, surface hardening, bearing materials, timber, concrete and lubricants.

**Assessment:** 20 per cent through assignments 80 per cent through unit examination.

**Reference:**

**Engineering Materials and Processes 1B EM2000**

Thirty two hours of classroom work, workshop instruction and industrial visits aimed at giving students a knowledge of manufacturing processes and their respective merits and applications.

**Syllabus:** Shapers, planers and slotting machines, lathes, milling machines, grinding machines, drilling machines, sand casting, die casting, centrifugal casting, other casting methods, forging, presswork, welding, extrusion, metal cutting, materials handling.

**Assessment:** 50 per cent through research projects, 50 per cent through unit examination.

**Engineering Principles 1A EP1000**

Forty eight hours of classroom work aimed at enabling students to determine unknown forces, reactions and resultant forces, for use in analytical design using mathematical and graphical methods.

**Syllabus:** Units, forces, moments, couples, beam reactions by moments and funicular polygon, conditions for equilibrium, two and three force
systems, concurrent and non concurrent force systems, space and free body diagrams for multi-link systems, pin jointed frames types of supports and types of members, Bows Notation, determination of forces using Maxwell diagrams Method of Pins and Method of Sections.

Reference:

Assessment: By three hour examination covering unit's work 50 per cent being the pass standard.

Engineering Principles 1B EP2000
Forty eight hours of classroom work aimed at enabling students to analyse dynamic force systems using mathematical methods to derive data for use in analytical design, and at giving students a basic knowledge of sound and fibre optics.

Syllabus: Kinematics, curvilinear motion, collisions and impulse, kinematics of circular motion, friction, energy power and work, centripetal acceleration and force, moment of inertia and radius of gyration, combined linear and rotational motion, sound and fibre optics.

References:
HOPE, J. S., Middle Level Physics, Pitman, Sydney.

Assessment: By a three hour examination covering unit's work 50 per cent being the pass standard.

Design for Economic Manufacture 1A DE3000
Thirty two hours of classroom work aimed at enabling students to appreciate the effects of design decisions on costs and manufacturing methods.

Syllabus: Machining operations, forging, casting, fabrication, pressing, welding, metal cutting, design for testing, design for economy, design for accuracy, techniques of Value Analysis and Value Engineering, selection of materials and manufacturing processes, use of N.C. machines, tolerances grades and their justification.

Assessment: Through assignments and a two hour examination.

Introduction to Design 1A ID1000
Thirty two hours of classroom work plus assignment work aimed at introducing students to the general aspects of design and the designers work and at enabling the student to communicate effectively.

Syllabus: Correct use of phone, clear and accurate writing, recording and retrieval of technical information, writing technical reports, oral communication, identification of design problem, analysis of design function, use of Codes and catalogues, evaluation of design solution, economic considerations, presentation of design solutions.

Assessment: Through assignment work.
Introduction to Design 1B ID2000

Thirty two hours of classroom work plus assingment work aimed at developing the students technique and competence to investigate and evaluate alternative methods of solving design problems and communicate effectively at design and production meetings.

Syllabus: Functional design of lever and system of levers, functional design of wheel shaft and key, understanding and selecting splines brakes clutches and couplings, the investigation and design of a multi-element system given sufficient parameters.

Assessment: Continuously throughout subject including oral submissions and through effective control of a design, design discussion group.

Machine Shop Practice TX1800

Four hours per week for one semester.

Syllabus: Workshop safety, the use of handtools; elementary machining operations related to drill, lathe, shaping and milling machines to enable the student to fabricate simple design projects produced in the Design Theory subject.

Assessment: Based on attendance and work performed.

Mathematics 1A MS1000

Thirty two hours of classroom work aimed at enabling the students to make accurate calculations of the type encountered in the design drafting field including an appreciation of the role of computers and experience in basic programming.

Syllabus: Transposition and use of formulae, equations, logarithms and indices, simultaneous and quadratic equations, use of calculator, statistical methods, computer hardware and software, BASIC statements, trig ratios.

Assessment: Through unit examination 50 percent deemed to be the pass mark.


Mathematics 2H XM2100 (semester) XM2800 (whole year)

A course of five hours per week for one semester, or two hours per week for one year.

Prerequisite: Mathematics 1H.

Syllabus: Complex number algebra, further differentiation and applications, integration and applications of integrations, simple 1st and 2nd order differential equations, further Boolean algebra.

References: To be announced.

Materials and Processes 1H XA2100, XA2800

A course of one two hour lecture plus one two-hour practical session every three weeks.

Prerequisites: Nil.

**Assessment:** Internal, including assignment and practical work.

**Prescribed text:**

**Mechanical Design 1A DN3000**

Thirty two hours of classroom work plus assignments aimed at enabling students to apply commercially available components to meet specific functional design requirements and to design simple structural components and simple piping layouts.

**Syllabus:** Bearings, methods of lubrication, belt drives, chain drives, clutches, brachets, rivets, bolts, types of welds, frames, piping and pipe fittings, valves, piping layouts.

**Assessment:** Through completion of five projects involving component selection and written reports plus a two hour open book examination.

**Mechanical Design 1B DN4000**

Thirty two hours of classroom work aimed at enabling students to:
1. develop their ability to participate in group investigations and oral communication and write technical correspondence and reports;
2. understand and design simple fluid power systems to meet specific requirements.

**Syllabus:** Technical description, oral communication, group communication, functions of reports, technique of report writing, introduction to hydraulics, hydraulic control valves, actuators, pumps, auxiliary equipment, hydraulic fluids, introduction to pneumatics, compressors, pneumatic control valves, pneumatic actuators, auxiliary pneumatic equipment, schematic symbols and their application, typical hydraulic and pneumatic circuits. Ergonomics, anthropometry, displays and controls, physical environment, safety.

**Assessment:** Through completion of five projects involving component selection and written reports plus a two hour open book examination.

**Mechanical Design 1H LA3800**

A course of one three hour lecture and project work each week plus project solutions at home.

**Prerequisites:** Engineering Drawing 2H, Applied Mechanics 2H. Applied Mechanics 3H must be done concurrently with this subject.

Assessment: Internal examination, including assignment work.

References:

Mechanical Drafting 1A DR1000

Forty eight hours of classroom work and a minimum of three hours per week homework aimed at enabling the student to develop basic drafting skills and to become competent in the application of these skills and standard practices and conventions to practical industrial situations.

Syllabus: Drawing office furniture and equipment, linework, lettering numerals and symbols, projections, sectioning, cutting planes, surface development, freehand sketching, assembly drawings, tolerancing, surface finish.


Assessment: Through two examinations 60 per cent plus semesters’ work 50 per cent.

Mechanical Drafting 2A DR3000

Forty eight hours of classroom work plus a minimum of three hours per week project work outside the classroom aimed at extending the students drawing and sketching and functional design ability and enable them to produce structural and piping drawings and use appropriate codes, drafting procedures and commercial reference materials.

Syllabus: Fundamental design of components, detail drawings of welded component detail drawings of bolted components, pipe fittings and symbols.

Assessment: Through a four hour final examination externally set and externally marked.

Mechanical Drafting 1H LA1100, LA1800

A course of one three hour lecture per week and drafting practice combined with at least three hours additional assignment work in own time.

Prerequisites: Leaving Technical Drawing. Preferably employment in a technical capacity.


Assessment: Internal examination including assignment work.

Prescribes texts:
AUSTRALIAN ENGINEERING DRAWING HANDBOOK: Part 1:

Mechanical Drafting 2AK LB2100, LB2800
A course of three hour lectures and drawing practice combined with at least three hours additional assignment work in own time.
Prerequisites: Engineering Drawing 1H, Applied Mechanics 1H.
Syllabus: Machine element clutches, brakes, fluid power cylinders, pumps, welding symbols, lifting ropes, formal drafting creative design (ideas), practical assemblies of bearings and machine components.
Assessment: One three hour paper internally set and marked.
Prescribed texts:

Physics 1H XP1100 (semester) XP1800 (whole year)
A course of lectures for five hours per week for one semester, or two hours per week for one year.
Syllabus:
(a) Topics common to electrical and mechanical students: units, fundamental quantities, vectors, momentum and impulse, work energy and power friction, linear and angular motion, vibratory motion, centripetal force, temperature and heat; thermal expansion.
(b) Specialised topics for Electrical and Electronics students: rotational dynamics, statics, heat transfer, wave motion and sound, reflection refraction and spectra, photometry electrostatics, electric circuits, magnetic field and force applied electron motion, electronics.
(c) Specialised topics for Mechanical Students: rotational dynamics, fluid statics, fluid flow, thermometry and pyrometry, electricity, structure of matter, wave motion and sound and sound properties or reflection refraction and lenses or basic chemistry.
Assessment: Cumulative by assignment and approved practical work.
References:
GARDINER, F. D., Practical Problems in Physics, Angus & Robertson, 1959.
HOPE, J. S., Middle Level Physics, Pitman, 1975.

Properties of Materials 1A PM3000
Thirty two hours of classroom and practical work aimed at enabling the student to become familiar with the properties of materials by carrying out destructive and non-destructive tests and understand the causes of and methods of preventing corrosion and material failure.
Syllabus: Dye penetrant test, magnetic particle test, X-Ray test, ultrasonic test, eddy current testing, tensile testing, compression testing, impact testing, fatigue testing, metal failure, corrosion, polymers and fabrics, shaping plastics, adhesives, electrical materials.

Assessment: Through class performance laboratory work and assignments plus a two hour examination.

Refrigeration and Air Conditioning LN4200, LN4800

A course of two hours per week including assignment and practical work.

Prerequisite: Applied Heat 1H.

Syllabus: The various refrigeration cycles. Pressure enthalpy diagram and simple saturation cycle on Ph co-ordinates. Simple problems using Ph diagram elementary psychrometrics refrigerants, compressors, evaporators, condensers and cooling towers, expansion devices, auxiliary equipment, sources of air conditioning loads, air distribution systems fans, air cleaning, cooling and heating coils, dampers, evaporative cooling.

Assessment: Internal assessment including assignment and practical work.

Supervision 1H XD4100, XD4800

A course of two hours of class work per week for one year.

Prerequisites: Social Science 1H and 2H.

Syllabus: Functions of the supervisor. Organisation structure authority, responsibility, delegation, span of control, functional authority, leadership types, morale.

Prescribed texts:

Department of Electrical and Electronic Technology

Certificate of Technology

The Middle Level Engineering Certificates of Technology are job-orientated and highly flexible with problem identification and solving an important characteristic.

The Certificate of Technology courses have been developed to meet the specific needs of industry and are designed around the part-time student.

Entrance Prerequisites

The prerequisites for admission to a course are either:

a. satisfactory completion of Form 5 (Year 11) including passes in English, Mathematics, Science or equivalent qualification, or,

b. sufficient experience and maturity to successfully undertake the course.
Course Availability

All courses are available on part-time basis. Stage 1 and 2 of the courses can be studied on a full-time basis over one full year.

Full-time students must pursue relevant industrial experience before starting Stages 3 and 4. Each stage is usually of one semester (full-time) or one year (part-time) duration.

Award

A Certificate of Technology will be awarded on successfully completing:

a. 30 units; and
b. a minimum of two years relevant industrial experience.

Graduates are eligible to become members of the Australian Institute of Engineering Associates. Graduates with Certificates in Electronic Communications are eligible to join the Institute of Radio and Electronics Engineers.

CERTIFICATE OF TECHNOLOGY
(Electrical and Electronics)

Courses Available

The School of Industrial and Commercial Studies offers the full range of Certificate Courses in these areas. While the early stages of both courses have common subjects, individual requirements are met in the later stages by a wide range of electives. These allow a student pursuing the electrical course to specialise in such areas as electrical power systems, electrical design drafting and industrial control, including digital and microprocessor technology. In the electronics course, a student can specialise in general electronics, communications, digital control and microprocessors, and computer electronics.

Full-time Courses

The school offers two stages of the courses on a full-time basis over one year. The final stages are usually completed on a part-time basis in subsequent years while industrial experience is also gained.

The full-time program offered is expanded beyond minimum specified requirements to ensure that students develop practical skills and knowledge designed to complement academic subjects. Students can select a program designed to prepare them for employment in the areas of:

- General Electronics
- Communications
- Digital Control and Microprocessors
- Computer Electronics
- Electrical Power Systems
- Industrial Control
- Electrical Design Drafting

Part-time Classes

All subjects are available on a part-time basis. They are usually arranged so that studies can be carried out

1. in the evenings.
2. with a combination of day release and evenings.
3. solely day release.

Course Formats
Students can select a program to suit their own particular requirements in accordance with the following tables. Some later specialist subjects may only be available at selected colleges.

CERTIFICATE OF TECHNOLOGY
(Electrical)  
Course Code: HE

Requirements: 30 units must be passed. These units must be selected in accordance with the following table.

<table>
<thead>
<tr>
<th>Level</th>
<th>Core Subjects</th>
<th>Electives (minimum 13 units)</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(compulsory)</td>
<td>(at least eight units at C or D level, four of which must be at D level)</td>
<td>(maximum four units)</td>
</tr>
<tr>
<td>A</td>
<td>Applied Electricity 1H</td>
<td>Applied Mechanics 1H</td>
<td>Applied Heat 1H</td>
</tr>
<tr>
<td></td>
<td>Communication &amp; Report Writing</td>
<td></td>
<td>Computer Studies 1H</td>
</tr>
<tr>
<td></td>
<td>Electrical Drafting Principles 1H</td>
<td></td>
<td>Physics 1H</td>
</tr>
<tr>
<td></td>
<td>OR Mechanical Drafting 1H*</td>
<td></td>
<td>Properties of Materials 1H</td>
</tr>
<tr>
<td></td>
<td>Electronics 1H</td>
<td></td>
<td>Wiring and Assembly</td>
</tr>
<tr>
<td></td>
<td>Mathematics 1E</td>
<td></td>
<td>Methods 1H</td>
</tr>
<tr>
<td>B</td>
<td>Applied Electricity 2H</td>
<td>Applied Mechanics 2H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronics 2H</td>
<td>Digital Electronics 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics 2E</td>
<td>Electrical Drafting 2H*</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Electrical Machines 1H</td>
<td>Digital Electronics 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrical Design 1H</td>
<td>Electrical Design 1H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronics 3H, OR</td>
<td>Electronics 3H (Power)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronics 3H (Power)</td>
<td>Microprocessor Fundamentals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microprocessor Fundamentals</td>
<td>Pulse Electronics 1</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Electrical Design 2H</td>
<td>Electrical Power Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrical Measure-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


All subjects have a value of two units except for Electronics 1H and Pulse Electronics 1, which are worth one unit each.

*These subjects must be taken by students pursuing the Electrical Design Drafting stream.

Further information on full-time programs available will be given upon application.

CERTIFICATE OF TECHNOLOGY
(Electronics)  
Course Code: HC

Requirements: 30 units must be passed. These units must be selected in accordance with the following table.

<table>
<thead>
<tr>
<th>Level</th>
<th>Core Subjects</th>
<th>Electives (minimum 15 units)</th>
<th>General (maximum four units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(compulsory)</td>
<td>Specialist (at least eight units at C or D level, four of which must be at D level)</td>
<td>Computer Studies 1H</td>
</tr>
<tr>
<td></td>
<td>(15 units)</td>
<td></td>
<td>Electronic Circuits 1H</td>
</tr>
<tr>
<td>A</td>
<td>Circuit Theory 1H</td>
<td>Electronic Drafting Principles 1H</td>
<td>Physics 1H</td>
</tr>
<tr>
<td></td>
<td>Communication &amp; Report Writing</td>
<td>Wiring and Assembly Methods 1H</td>
<td>Properties of Materials 1H</td>
</tr>
<tr>
<td></td>
<td>Electronics 1H</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics 1E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Circuit Theory 2H</td>
<td>Digital Electronics 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronics 2H</td>
<td>Television Principles 1H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics 2E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Electronics 3H</td>
<td>Circuit Theory 3A 3H</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Circuit Theory 3B</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication Principles 1H</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Digital Electronics 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Microprocessor Fundamentals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pulse Electronics 1</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>Communication Measurements 1H</td>
<td></td>
</tr>
</tbody>
</table>
All subjects have a unit value of two units except for Electronics 1H, Circuit Theory 3A and 3B and Pulse Electronics 1 which are worth one unit each.

Further information on full-time programs available will be given upon application.

**SUBJECTS**

*In alphabetical order*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Taught over one Semester</th>
<th>Taught over whole year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Electricity 1H</td>
<td>XE1100 7 6</td>
<td>XE1800 3</td>
</tr>
<tr>
<td>Applied Electricity 2H</td>
<td>XE2100 7 6</td>
<td>XE2800 3</td>
</tr>
<tr>
<td>Circuit Theory 1H</td>
<td>LT1100 7 6</td>
<td>LT1800 3</td>
</tr>
<tr>
<td>Circuit Theory 2H</td>
<td>LT2100 7 6</td>
<td>LT2800 3</td>
</tr>
<tr>
<td>Circuit Theory 3H</td>
<td>LT3100 7 6</td>
<td>LT3800 3</td>
</tr>
<tr>
<td>Communication &amp; Report Writing</td>
<td>XC1100 4 4</td>
<td>XC1800 2</td>
</tr>
<tr>
<td>Communication Measurements 1H</td>
<td>LM4100 7 6</td>
<td>LM4800 3</td>
</tr>
<tr>
<td>Communication Principles 1H</td>
<td>XY3100 6 6</td>
<td>XY3800 3</td>
</tr>
<tr>
<td>Communication Techniques 1H</td>
<td>LX4100 9 7</td>
<td>LX4800 4</td>
</tr>
<tr>
<td>Computer Studies 1H</td>
<td>XG1100 4 4</td>
<td>XG1800 2</td>
</tr>
<tr>
<td>Digital Electronics 1</td>
<td>XX1100 4 4</td>
<td>XX1800 2</td>
</tr>
<tr>
<td>Digital Electronics 2</td>
<td>XX2100 6 6</td>
<td>XX2800 3</td>
</tr>
<tr>
<td>Electrical Design 1H</td>
<td>LD1100 7 6</td>
<td>LD1900 3</td>
</tr>
<tr>
<td>Electrical Design 2H</td>
<td>LD2100 8 8</td>
<td>LD2900 4</td>
</tr>
<tr>
<td>Electrical Drafting Principles 1H</td>
<td>LE1200 4 4</td>
<td>LE1900 2</td>
</tr>
<tr>
<td>Electrical Drafting 2H</td>
<td>XD2100 6 4</td>
<td>XD2800 2</td>
</tr>
<tr>
<td>Electrical Machines 1H</td>
<td>XE3100 8 6</td>
<td>XE3800 3</td>
</tr>
<tr>
<td>Electrical Measurements</td>
<td>XZ4100 7 7</td>
<td>XZ4800 3</td>
</tr>
<tr>
<td>Electronic Circuits 1H</td>
<td>LC1100 4 4</td>
<td>LC1800 2</td>
</tr>
<tr>
<td>Electrical Power Systems</td>
<td>XP4800 3</td>
<td></td>
</tr>
</tbody>
</table>
SUBJECT SYNOPSIS

Applied Electricity 1H XE1100 (semester) XE1800 (whole year)

A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisite: Year 11 mathematics and physics.

Syllabus: Basic electrical fundamentals, network analysis, magnetism, instruments and measurements, electromagnetism, electrostatics, EMF sources, AC fundamentals.

Assessment: Final examination, unit tests, assignments and practical work.

References:

Applied Electricity 2H XE2100 (semester) XE2800 (whole year)

A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisites: Mathematics 1E, Applied Electricity 1H. This subject must be studied concurrently with Mathematics 2E.

Syllabus: AC fundamentals, complex notation in electrical circuits, further network theorems, resonance circuits, polyphase systems, circuit transients, complex waveform analysis, AC meters, machines.
Assessment: Final three hour external examination 60 per cent, external practical examinations 10 per cent and internal tests 30 per cent.

References:

Circuit Theory 1H LT1100 (semester) LT1800 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Syllabus: Units, network theorems, magnetism, AC fundamentals, instruments, electromagnetism, electrostatics, rotating machinery.
Assessment: Final examination, internal tests, assignments and practical work.
References:

Circuit Theory 2H LT2100 (semester) LT2800 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Circuit Theory 1H, Mathematics IE. Mathematics 2E should be studied concurrently with this subject.
Syllabus: AC fundamentals, f, Y, h parameters, AC circuits analysis, resonance, circuit Q, instruments, polyphase systems, rotating machinery, transformers.
Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.
References:

Circuit Theory 3H LT3100 (semester) LT3800 (whole year)
A course of lectures for six hours per week for one semester, or three hours per week for one year.
Prerequisites: Circuit Theory 2H, Mathematics 2E.
Syllabus: 2-port networks, complex circuits, insertion power ratio, modern passive filter analysis, active filters, transfer functions, transmission lines, terminated lines, Smith charting of lines.
Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.
Reference: To be advised.

Communication and Report Writing XC1800 and XC1100
Prerequisites: Nil.
Syllabus: Communication Theory; technical report writing techniques and composition; oral reporting; discussion skills; interviewing techniques, audio-visual communications; memo writing; letter writing, graphic communication.
Assessment: Assessment of work will be on a cumulative basis which will include a major technical report.

Prescribed text: Assigned articles plus material and lecture notes.

References:

Communication Measurements 1H LM4100 (semester) LM4800 (whole year)

A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisites: Mathematics 3E, Circuit Theory 3H, Electronics 3H.

Syllabus: Practical meters, bridges and their applications, signal generators, CRO, time domain reflectometers, digital equipment, audio testing, group delay meters, system testing.

Assessment: Final three hour external examination 50 per cent and internal tests 50 per cent.

Reference: To be advised.

Communication Principles 1H XY3100 (semester) XY3800 (whole year)

A course of lectures for six hours per week for one semester, or three hours per week for one year.

Prerequisites: Circuit Theory 2H, Electronics 2H, Maths 2E.

Syllabus: Fundamentals of communication systems. Oscillators, amplifiers, networks, transmission lines, data transmission.

Assessment: Assignments and one internal examination.

References: To be advised.

Communication Techniques 1H LX4100 (semester) LX4800 (whole year)

A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisites: Circuit Theory 3H, Electronics 3H.

Syllabus: Basic communication systems, RF voltage amplifiers, RF oscillators, RF power amplifiers, modulation superheterodyne receivers, transmission lines and antennae.

Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.

Computer Studies 1H XG1100 (semester) XG1800 (whole year)

A course of lectures for four hours per week for one semester or two hours per week for one year.

Prerequisite: This subject must be studied concurrently with Mathematics 1E, or higher.

Syllabus: Computer mathematics, computer description — hardware, software, languages (machine, assembler, computer), BASIC language programming.

Assessment: Assignments and examinations.

References:

Digital Electronics 1H XW1100 (semester) XW1800 (whole year)

A course of lectures and practical exercises for four hours per week for one semester.

Prerequisites: Electronics 1H, Circuit Theory 1H.

Syllabus: Development of digital electronics, Boolean Algebra, Number systems and codes, logic families, MSI devices, semiconductor memory I.C.s, displays.

Assessment: Internal progressive tests — 30 per cent.
External written examination — 60 per cent.
External practical examination — 10 per cent.

References:
TOCCI, R. J., *Digital Systems*.
HILL & PETERSON, *Introduction to Switching Theory and Logic Design*.
BELL, *Solid State Circuits*.

Digital Electronics 2 XX2100 (semester) XX2800 (whole year)

A course of lectures for six hours per week for one semester, or three hours per week for one year.

Prerequisites: Digital Electronics 1, Electronics 3H.

Syllabus: Realisation of Boolean Functions, MSI devices, Synchronous and Asynchronous Sequential Circuits, Counters, ROM's, Advanced Logic Circuits, Data Communications, Measuring Devices, Conversion between analog and digital, Data Domain Servicing.

Assessment: Internal assessment 30 per cent. External three hour written examination 70 per cent.
Electrical Design 1H LD1100 (semester) LD1800 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
*Prerequisites:* Electrical Drafting Principles 2H, Applied Electricity 2H. This subject must be studied concurrently with Electrical Machines 1H.
*Syllabus:* Electrical contracting, electrical installations including locations, enclosures, busbar design, earthing and general protection, lighting principles, motor selection, motor protection, motor control, electrical estimating.
*Assessment:* Two three-hour examinations and projects.
*Reference:* To be advised.

Electrical Design 2H LD2100 (semester) LD2800 (whole year)
A course of lectures for eight hours per week for one semester, or four hours per week for one year.
*Prerequisites:* Electrical Design 1H, Electrical Machines 1H, Electronics 2H (power) or equivalent.
*Syllabus:* Elements of Design, Heating and Cooling. Temperature measurement and control, motor drive systems, control circuit design, magnetic circuit design, building services, programmable logic controllers.
*Assessment:* Internal 50 per cent: three hour examination, projects, assignments and/or practical work. External 50 per cent: three hour examination which tests the total syllabus. Students must pass the external examination to pass the subject.
*References:* To be advised.

Electrical Drafting Principles 1H LE1200 (semester) LE1900 (whole year)
A course of lectures for four hours per week for one semester, or two hours per week for one year.
*Syllabus:* Drafting fundamentals, civil drafting principles, mechanical drafting principles, electrical drafting circuit and wiring diagrams, schematics, printed circuit production.
*Assessment:* Projects.
*References:* Moorabbin TC publication: *Electrical Drawing — Electro Mechanical Drawing* *Electrical Drawing — Workbook.*

Electrical Drafting 2H XD2100 (semester) XD2800 (whole year)
A course of five hours per week for one semester or two hours per week for one year. Additional assignment, work in own time.
*Prerequisite:* Mechanical Drafting 1H or Electrical Drafting Principles 1H.

Assessment: Final three hour external examination 70 per cent. Internal tests and projects 30 per cent.

References:
Australian Standard Electrical Symbols AS1102.

Electrical Machines 1H XE3100 (semester) XE3800 (whole year)

A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisite: Applied Electricity 2H.

Syllabus: Machine operating principles, rotating machines — winding, currents and EMF’s, DC machines, transformers, 3-phase induction machines, 1-phase induction machines, 1-phase motors, synchronous machines.

Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.

Reference:
JURIK, Electrical Machines for Engineering Technicians, Longmans.

Electrical Power Systems XP4800

A course of three hours per week for one year.

Prerequisite: Electrical Machines 1H.


Assessment:
Final three hour external examination 50 per cent
Internal Tests 30 per cent
Practical work and/or thesis 20 per cent.

Reference:

Electronic Drafting Principles 1H LE1100 (semester) LE1800 (whole year)

A course of lectures for four hours per week for one semester, or two hours per week for one year.

Prerequisites: Circuit Theory 1H, Electronics 1H.

Syllabus: Drafting Fundamentals, Mechanical Drafting Principles, Electronic Circuit and Wiring Diagrams, Print Circuit Production.

Assessment: Projects.

References: As for Electrical Drafting Principles 1H.
Electronics 1H LL1100 (semester) LL1800 (whole year)
A course of lectures and practical sessions for four hours per week for one semester, or two hours per week for one year.
Syllabus: Investigation of passive and active circuit elements with emphasis on equipment usage. Study of active bias circuits and amplification principles.
Assessment: Practical and theory examinations.

Electronics 2H LL2100 (semester) LL2800 (whole year)
A course of lectures and practical sessions for seven hours per week for one semester, or three hours per week for one year.
Syllabus: Semi-conductor diode applications, amplifying circuits, basic frequency response of active circuits, negative feedback principles, cascaded amplifiers, logic and timing circuits, power supplies and control circuit devices.
Assessment: Final three hour external examination 70 per cent and internal assessment tests 30 per cent.

Electronics 3H LL3100 (semester) LL3800 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Circuit Theory 2H, Electronics 2H.
Syllabus: AC waveforms, verifying circuits, power dissipation, classes of amplifiers, frequency response and amplifier performance limitations, open and closed feedback loops, stability, multi-stage feedback, DC amplifiers, differential amplifiers, operational amplifiers, transistor switching and logic circuits.
Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.
Reference: To be advised.

Electronics 3H (Power) XF3100 (semester) XF3800 (whole year)
A course of lectures for six hours per week for one semester, or three hours per week for one year.
Prerequisite: Electronics 2H
Syllabus: Rectifying filters and regulators, operational and power amplifiers, sinusoidal and non-sinusoidal oscillators, thyristors (applied), static inverters, timing circuits, principles of transducers.
Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.
Reference: To be advised.

Mathematics 1E XT1100 (semester) XT1800 (whole year)
A course of lectures for four hours per week for one semester, or two hours per week for one year.
Prerequisite: Year 11 Mathematics.
Syllabus: Number systems, especially to the base 2, 8, 16...; logarithms and algebra, solution of simple linear equations, general trigonometric functions, introduction to differentiation, Boolean algebra including logic simplifications, computer members.
Assessment: By unit and final examination.
Reference: To be advised.

Mathematics 2E XT2100 (semester) XT2800 (whole year)
A course of lectures for four hours per week for one semester, or two hours per week for one year.
Prerequisite: Mathematics 1E.
Syllabus: Further complex numbers, differentiation — electrical application, integration and electrical application, basic differential equations and their applications, further Boolean algebra.
Assessment: Final three-hour examination, unit tests.
Reference: To be advised.

Measurement Instruments LS4100 (semester) LS4800 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Circuit Theory 3H, Electronics 3H.
Assessments: Final three hour external examination 50 per cent. Internal tests and practical assignments 50 per cent.
Reference: COOPER, Electronic Measurements and Instrumentation.

Microprocessor Applications XY2100 (semester) XY2800 (whole year)
A course of lectures for seven hours per week for one semester or three hours per week for one year.
Prerequisites: Digital Electronics 1, Pulse Electronics 1A, Microprocessor Fundamentals.
Syllabus: Keyboards, Dot Matrix Printers, Raster-see displays, Tele-
printer Mass Storage, Communications, Analog Interfacing, Bus Structures, Control.

Assessment: Final external examination, 50 per cent; progressive internal examination and student projects, 50 per cent.

**Microprocessor Fundamentals XY1100 (semester) XY1800 (whole year)**

A course of lectures and practical exercises for four hours per week for one semester part-time and six hours per week for one semester full-time.

Prerequisite: Digital Electronics 1 or equivalent.

Syllabus: Microcomputer terminology, methods of programming, addressing, binary arithmetic, minimal systems, interfacing I/O, interrupts, timing and speed, direct memory access, diagnostics, programming aids, use of development systems.

Assessment: Final external examination, 50 per cent; progressive internal examination and student projects, 50 per cent.

References:
- Motorola 6800 microcomputer system data
- or
- Intel 8085 users manual
- and

**Physics 1H XP1100 (semester) XP1800 (whole year)**

A course of lectures for five hours per week for one semester, or two hours per week for one year.

Syllabus:
(a) Topics common to electrical and mechanical students: units, fundamental quantities, vectors, momentum and impulse, work energy and power, friction, linear and angular motion, vibratory motion, centripetal force, temperature and heat; thermal expansion.

(b) Specialised topics for Electrical and Electronics students: rotational dynamics, statics, heat transfer, wave motion and sound, reflection, refraction and spectra, photometry electrostatics, electric circuits, magnetic field and force, applied electron motion, electronics.

(c) Specialised topics for Mechanical Students: rotational dynamics, fluid statics, fluid flow, thermometry and pyrometry, electricity, structure of matter, wave motion and sound and sound properties or reflection, refraction and lenses or basic chemistry.

Assessment: Cumulative by assignment and approved practical work.

References:
Properties of Materials 1H XL2100 (semester) XL2800 (whole year)

A course of lectures for four hours per week for one semester, or two hours per week for one year.

*Syllabus:* Micro- and macrometallography, ferrous alloys, non-ferrous metals and alloys, testing metals, metal working and jointing methods, electrical apparatus materials; vacuum impregnation, varnishing, encapsulation testing, insulating materials, corrosion.

*Assessment:* By examination and projects.

*References:* To be advised.

**Pulse Electronics 1 (XX1100)**

A course of lectures and practical exercises for three hours per week for one semester.

*Prerequisites:* Circuit Theory 2H, Mathematics 2E, Electronics 2H.

**Wiring and Assembly Methods 1H LW1200 (semester) LW1900 (whole year)**

A course of lectures for four hours per week for one semester, or two hours per week for one year.

*Syllabus:* Bench work using general machine tools, forming materials, soldering and assembly methods, workshop practices (lathe work), production of printed circuits.
CIT COUNCIL
(as at 30 April 1981)

President:
Lisa Brodribb,
AM, MA, PhD(Melb), FAIM

Vice Presidents:
Donald H. Peebles
J. Douglas Riley,
FCA

Secretary:
Maurie W. Blank,
BSc, AASA, MACE

Members:
Anthony C. Bailey,
LLM(Cambridge), GradDip Accounting & Finance(CIT)
Noel Conway,
BBus
Arthur Crook,
BA(Hons)(Qld), MA(Melb), MAPsS
Ronald W. Cumming,
BE(Syd), AM(Michigan), ME(Melb), CEng, FTS, FHFS, FAPsS,
MIEAust, MRAeS, ABPsS
Geoffrey N. Doolan,
LLB(Melb)
Ian Garnier,
DipBus (Accounting), ACA
Elizabeth Hall,
BArch(Melb), FRAIA
Noel W. J. Huggan,
BComm, DipEd(Melb), AASA
Thomas Gordon Pickford,
ACA, AASA, AFAIM
Paul Ramler,
DipBus, AAIM, ACIT
William F. L. Reese,
AASA, ACIS
Ronald George Ritchie,
BMechEng, DipEd(Melb), MAdmin(Monash), MIEAust, MIMechE,
MACE
Hazel A. Ryan,
BA(Hons), DipSocStud(Melb), DipIPSA, FIPS
John O’C. Walker,
MSc(Soton UK), MEd(Monash), EdD(PWU), DipCE(P’Mouth), CEng,
MICE, MIEAust., MIWE
William Ronald Walters,
MBE, JP
CIT STAFF

Administration

DIRECTOR
Ronald W. Cumming,
BE(Syd), AM(Michigan), ME(Melb), CEng, FTS, FHFS, FAPsS,
MIEAust, MRAes, ABPsS

Secretary
Veronika Martens,
ZertBusAdm(Rinteln), Diplom Industrie Kaufmann
(Bielefeld)

Projects Officer
Joan Ciastkowski,
BSc,(Hon)(NUU), Cert of Ed

DEPUTY DIRECTOR (Advanced Education)
Thomas Kennedy,
Bsc, PhD(Glasgow), GradDipEd, CChem, FRIC, ARACI,
MAIMM, MACE

Secretary
Margaret K. Boyes,
ADipPSP(CIT), AIPS

Graduate Assistant
Geoff Harrison,
BSc(Hons)(Monash)

DEPUTY DIRECTOR (TAFE)
Peter F. Cutter,
BCom(Melb), MEd(Monash), MACE

Secretary
Chrissie Coutsourelos

SECRETARY
Maurie W. Blank
BSc, AASA, MACE

Secretary
Ann Tamhane

ACADEMIC REGISTRAR
David Muffet,
TPTC, BA, MEdAdmin(Hons)(New England), MACE
Secretary
Melissa Eldridge

Assistant Registrar (Students)
To be appointed.

Academic Secretary
Alan C. Young,
    BA(Monash)

Assistant Academic Secretary
Paul Rodan
    BA(Hons)(WA), MA(Qld)

Admissions Officer
Philip C. Irvine,
    BBus(Public Admin) (RMIT)

Student Administrative Services Officer
To be appointed.

Student Loans Officer
Eve Yamouni,
    LLB(Melb)

Systems and Records Officer
Sandy Kerr,
    BCom(Melb), AASA

Assistant Statistics Officer
Gary S. Todd,
    BA(Melb)

Timetable and Examinations Officer
Marie Quigg,
    BA(Monash), TSTC(MSC)

Schools Liaison Officer
Beatrice Nielsen

Records Manager
Perviz Parakh,
    BA(Hons)(Bombay), Cert French(Geneva),
    Zert Deutsch (Heidelberg)

BUILDINGS OFFICER
Kenneth W. Raverty

Secretary
Christine Garrick

Projects Manager
Robin Bradnick
Resident Property Supervisor
James Gorse

CATERING MANAGER
Alan Nicholson

Assistant
Gwenda Alleyne

FINANCIAL CONTROLLER
Alan Hamstead,
AASA

Secretary
Edna Baxter,
DipIPSA, FIPS

Budget Co-ordinator (Advanced Education)
Peter Davis,
BBus (VIC), AASA, MIAA, MRIPA

Budget Co-ordinator (TAFE)
Bill Bailey

Systems Accountant
Stephen Hart

Supply Manager
John Greenwood,
AFAIM, AFIPSM

INFORMATION OFFICER
Neville Weeraratne

Information Assistant
Deirdre Maloney,
BA(La Trobe)

Advertising
Adrianne Dooley

Clerical Assistant
Lee McLellan

PRINTING SERVICES MANAGER
Margaret A. Blank

Operations Manager
Merryl Sherriff

Graphic Designer
Sharon Arnott
Dip A&D(CIT)
Clerical Assistant
Mica Deslandes

STAFF OFFICER
Timothy F. Smith
BA(Monash), BEd(Melb), MI PM A

Secretary
Joan Smith

Appointments Officer
Pat Hanlon

Staff Administration Officer
Gotu Tamhane,
BSc(Hons)(Bombay)

Salaries Administration Officer
Cliff Nichol

Leave Clerk
Margaret Young

Careers & Employment Service

CAREERS & EMPLOYMENT OFFICER
Austin W. Chapman,
AAII, ACIS, CertMarketingAdmin(RMIT), BA(VIC),
DipEdCounselling(RMIT), MAPsS

Student Employment Officer
To be appointed.

Career Information Officer
Warwick D. Slade,
GradDipCareerEd(RMIT)

STUDENT UNION
Union Officer
Brenda J. Carruthers,
DipArt&Design(Prahran), DipEd(MelbSC)

Administrative Officer
Ed Brew,
DipArts(GIAE)

Education Research Officer
Bruce Winter,
DipGeneralStudies(CIT), BSW(Melb)
Accountant
Jack Cahill,
AASA, DipIndManagement(RMIT)

Secretaries
Karen Hoye (part-time)
Helen Evans (part-time)

Bookkeeper
Joyce Sexton (part-time)

Student Support Worker
John Milburn,
Cert of Welf(ISW), MAIW

Computer Centre

MANAGER
L. John Dann,
FRMTC, BAppSc(VIC), MIEAust, AFIMA, MACS

Secretary
Kaye N. Hughes

Operations Manager
Ray E. Newland,
DipBusStud(EDP)(CIT), ACIT, MACS

Senior Systems Analyst
Stewart J. Olney,
MACS

Chief System Programmer
Duncan C. Roe,
BSc(Hons)(Edin)

Systems Analysts and Analyst/Programmers
Percy B. Blackburn,
BSc(Wales, LRIC, MAIP, GradDipDP, MACS
Ron Hasan,
MACS
Robert A. van Eyk,
DipMM(The Hague), DipMarE(Utrecht), MACS,
DipDP(Utrecht)
Yoong Yap,
BMechE(NSW)

Programmers
Stephen R. Balogh,
AACS
Neil Bruerton,
*DipDP*
Daril J. Gawith
Kerry F. Hilsberg
David J. Wilson
Stephen Wright,
*DipSc*

**Computer Operators**
Christine Arthur,
*CertEDP(Operating & Coding)*
Neil W. Brewster
Yvonne P. Conyers
Egils Davis
Sam Ebejer,
*CertEDP(Operating & Coding)*
Michael S. Efstathiadis,
*CertEDP(Operating & Coding)*
Malcolm Keith-Storey
Brian E. Sheehan,
*CertEDP(Operating & Coding)*
Robert J. Tonizzo,
*CertEDP(Operating & Coding)*

**Data Preparation Supervisor**
Nancy A. Knowles

**Data Preparation Operators**
Marilyn Kennedy
Renata Malcik
Andrea Marie
Jenny Stanley

**Clerical Assistants**
Teresa Hackett
Beryl Lalor

**Counselling Services**

**HEAD OF COUNSELLING SERVICES**
Kim Wyman,
*BA, DipSocStud(Melb), MAPsS*

**Secretary**
Cheryl Kane

**Reception**
Maree Opray
Pam Hall
Pat Phillips
Welfare/Support Service
Charles Aitken,
Community Lawyer
Fr. Jim Scarlett,
Chaplain
Laibl Wolf,
Chaplain
Phillip Zajac,
Chaplain

Health Service
Julie Cannon,
Neville Green,
BDSC(Melb), LBS(Vic)
Ivor Davis,
BSc, MB, BS(Monash) — Medical Consultant
Chris Hazzard,
MB, BS(Melb) — Medical Consultant (Co-ordinator)
Livia Jackson,
MB, BS(Monash) — Medical Consultant
Barbara Pittard,
SRN — Nursing Sister
Marlene Robbins,
Nursing Sister
Sheila Skidmore,
SRN — Nursing Sister

Consulting Service
Miriam Tisher,
MA(Melb), MAPsS — Counsellor (Co-ordinator)
Rhonda Millar,
Counsellor (TAFE)
Tim O'Leary,
Cert of Welf(ISW), MAIM — Counsellor
Mark Spatz,
Counsellor
Andrew Winter,
BAHons(Melb), DipEd(Media-LaTrobe) — Counsellor

Children's Service
Trudi Reus,
— Family Day Care Service (Co-ordinator)
Denise Golds,
— CIT Group Care Centre (Co-ordinator)
Kathy Standfield,
— Child Care Worker
Erica Strange,
— Mothercraft Nurse
Educational Development Unit

HEAD
Charles, E. Noble,  
*BCom, BEd(Melb), MA(Monash), MEd(LaTrobe)*

Secretary
Renate Dierolf, 
*BA(Monash), GradDipSecStuds(CIT)*

Lecturers
Robert M. Thompson,  
*BSc, DipEd(Monash), GradDipFTV(Swinburne) — Lecturer in Media Education*
David Farrow,  
*BSc(Hons)(Melb), DipEd(Monash), DipMet(C’wealth Bureau of Meteorology) — Lecturer in Computer Education*

Technical Officers
Robert H. Clarke  
Peter R. Taylor,  
*InstAustPhotog, MBKS, LRPS, CGLI(Photog)*

Technicians
Barry Bron  
Barbara J. Hannay,  
*DipGraphicDesign(Swinburne)*
Kevin Carvalho  
Michael Richards

Library

CHIEF LIBRARIAN
Patrick Condon,  
*BA(NSW), DipLib(NSW), DipEd(Ter)(DDIAE), ALAA, MACE*

Secretary
Heather Stonehewer

ACADEMIC SERVICES DIVISION

SENIOR LIBRARIAN
Chooi-Hon Ho,  
*BA(Hons)(Malaya), ALA, ALAA*

Information & Resources Librarians
Maureen Corea,  
*BA(Hons)(Lon) — Social & Behavioural Studies*
David Foott  
_BA(JCUNQ), ALAA — Engineering_

Jean Gourlay,  
_ALAA, GradDipDP(CIT), AACS — Applied Science & Computing and Information Systems_

Megan Lilly,  
_BA(Syd), DipLib(RMIT) — Business_

Vacant — TAFE (Community and Access Education, Foundation and Preparatory Studies)

Joan Rae,  
_DipLib(BCAE), ALAA — Art & Design_

**SYSTEM DIVISION**

**SENIOR LIBRARIAN**  
Neville Houghton,  
_BScSc(RMIT), FLA, ALAA_

**Librarians**

Jean Tindall,  
_BA(Melb), ALAA — Bibliographic Co-ordinator_

Ruth Dixon,  
_BA(Melb), DipLib(RMIT), DipBookProd(Lon) — Acquisitions_

**Library Officers**

Enid Carr —  
_Cataloguing_

Linda Parsons,  
_BA(New England), DipLib(RMIT) — Cataloguing_

Catherine Wallace,  
_BA(M/D)(CIT), DipLib(RMIT), ALAA — Cataloguing_

Robert Walshe-Howling,  
_BA(Hons)(Monash) — Lending Services_

**Library Technicians**

Piya Arumapperuma  
Rex Bell  
Fay Bower  
Patricia Mangan

**CARNEGIE BRANCH**

**SENIOR LIBRARIAN**

Marion Taylor,  
_BSc(Melb), ALAA_

**Library Officer**

Margaret Tempest,  
_ALAA_
Elections are held in September of each year with by-elections to fill any vacancies in the following March. The following office-bearers hold office until 31 December 1981.

**President**
- David Stephens

**Vice President**
- Chris Sleight

**Treasurer**
- Dayle Coggin

**Union Secretary**
- Jeffrey Cole

**AUS Secretary**
- Aage Thrupp

**WELFARE COMMITTEE**
- Kevin Boxall
- Michelle Noble
- Jenni Williams
- Craig Marshall
- Christine Clark
- Elizabeth Evans
- Ann Evans
- Anthony Veale
- John Longo
- Susan Tsopanas
- Jane Marks
- Paul McLeish
- Jeanpierre Lajoie
- Sarah Crowther

**SPORTS COMMITTEE**
- David Stephens
- Chris Sleight
- Dayle Coggin
- Jeffrey Cole
- Aage Thrupp
- Kevin Boxall
- Michelle Noble
- Jenni Williams
- Craig Marshall
- Christine Clark
- Elizabeth Evans
- Ann Evans
- Anthony Veale
- John Longo
- Susan Tsopanas
- Jane Marks
- Paul McLeish
- Jeanpierre Lajoie
- Sarah Crowther

**MEDIA COMMITTEE**
- John Longo
- Susan Tsopanas
- Jane Marks
- Paul McLeish
- Jeanpierre Lajoie
- Sarah Crowther

**ACTIVITIES COMMITTEE**
- David Stephens
- Chris Sleight
- Dayle Coggin
- Jeffrey Cole
- Aage Thrupp
- Kevin Boxall
- Michelle Noble
- Jenni Williams
- Craig Marshall
- Christine Clark
- Elizabeth Evans
- Ann Evans
- Anthony Veale
- John Longo
- Susan Tsopanas
- Jane Marks
- Paul McLeish
- Jeanpierre Lajoie
- Sarah Crowther

**COMMUNITY AFFAIRS COMMITTEE**
- Jacqui Brown
- Jacqueline Moore
- Glen Kelly
- Jane Wolstenholme

**EDUCATION COMMITTEE**
- Kevin Caldwell
- Colin Sloman
- Mary Woodfield
- Maree Gibson
- Matthew Walsh
- Marie Hourigan
- Peter O’Neill
- Nina Jurkow
- Jeffrey James
- Sue Blankenship
- Leon Richardson
- Richard Sallows
- Graeme Ferris

**‘NAKED WASP’**
- Editorial
- 3CT radio co-ordinator
- 3CT music room co-ordinator
- PTMAS representative
- Students Representative on CIT Council

- Tara Debrodt
TAFE DIVISION

DEPUTY DIRECTOR/ PRINCIPAL, TAFE DIVISION
Peter F. Cutter,
BCom(Melb), MEd(Monash), MACE

Secretary
Chrissie Coutsourelos

VICE PRINCIPAL
DEAN OF THE SCHOOL
FOUNDATION AND PREPARATORY STUDIES
Maurie Curwood,
DipMechEng(FIT), TTTC(SCVH), BSc(Melb), BEd(Melb)

Secretary
Annette Pelgrim
GradDipSocStuds(CIT)

CHAIRMAN OF THE SCHOOL
INDUSTRIAL AND COMMERCIAL STUDIES
Ian V. Rofe,
DipMechEng(CIT), TTTC(SCVH)

Secretary
Kay Grant

CHAIRMAN OF THE SCHOOL
APPRENTICESHIP AND SKILL TRAINING
Ken Griska,
BBuild(Melb), TTTC(SCVH), AAIB

Secretary/Administrative Assistant
Annette Fischer

CHAIRMAN OF THE SCHOOL
COMMUNITY AND ACCESS EDUCATION
Michael Smith,
BA(Hons), TPTC(SCVF)

Secretary
Karen Smith

PLANNING OFFICER
Peter F. Cunliffe,
BA(CIT)

Secretary
Michelle Strain
ASSISTANT REGISTRAR (TAFE)
Patricia M. Hosking,
BA(Canterbury)

Secretary
Margaret Pitcher

Administrative Officers
Laura Booth
   BBusiness, SecStudies(CIT)
Patricia Browne
   BCom(Melb)
Dianne Hillman

Secretarial Staff
Ellie Bowie
Vicki Cooney
Jannine Dawes
Mafalda Holmes
Jan E. Layfield
Anna Malady
Christine Markakis
   Associate Diploma, Private Secretarial Practice (CIT)
Anna Notarberardino
Claude C. Renaut

Teaching Staff
Henry C. Akerstein,
   DipAppChem(Swinburne), BEd(La Trobe), TTTC(SCVH)
Robert, M. Akister,
   TTrIC(SCVH)
Nola Arch,
   BA(Melb), DipEd(Monash)
Kaye Aumann,
   BEd (Rusden State College)
Rita Bagossy,
   Associate Dip in Priv.SecPrac(CIT)
Barry Bailey,
   Cert Technical Teaching in Metal Fabrication (SCVH)
Trevor J. Bankin,
   TTrIC(SCVH), TechCert(Building)(CIT)
Margaret Bell,
   Dip Art & Design (Painting/Sculpture) (Prahran) TTTC (Hawthorn)
Wendy Bell,
   DipIPSA, DipTechEd
Glen Berthisel,
   DipCivilEng, DipEd
Stephen Bird,
   BJuris(Monash), DipEd(SCVH)
Mike J. Bishop,
   TTrIC(SCVH)
Ken A. Boyd,
MA(Glasgow), CertIndRels(Strathclyde), CertPersMgt(Strathclyde),
DipEd(SCVH), MAPsS

John Broderick,
BA(Monash), DipEd(Melb)

Paul Brin,
MA, DipEd(Melb)

Leonard V. Cahill,
TTrIC(SCVH), ProdTechnician Cert (CIT)

Jane M. Campbell,
BA(Monash), DipEd(SCVM)

Marie A. Carroll,
BA(Melb), BEd(La Trobe), TSTC(SCVM)

Richard Carter,
BA, DipEd(La Trobe)

Kum Fong Choo,
BEng(Elec)(RMIT), IndTechCert(Singapore), DipEd(SCVH)

Robert C. Clayfield,
DipChemEng(Swinburne), DipEd(SCVH)

Dennis A. Cleverley,
TTrIC(SCVH)

Sharon L. Coates,
BA(Melb), DipEd(La Trobe)

Alan F. Coggins,
TTrIC(SCVH)

Frank J. Colgan,
BAppSc(RMIT), FRMIT(Phys), TTTC(SCVH)

William Crawford,
BEd(SCVR)

Peter Cross,
BSc(Melb), DipEd(Melb)

Alistair Crozier,
BSc(Hons)(London), CertEdARCS(Cantab)

Brian Dawson,
BBus(Swinburne), DipEd(SCVH)

Stephen Dean,
DipBioChem(BIT), DipEd(SCVH)

Bernadette Delaney,
BA(La Trobe), DipEd(La Trobe)

Ean Douglas,
BSc(Melb), TSTC(Melb)

H. Martin Dykstra,
BComm(Melb), GradDipFinMgt(UNE), AASA(Snr), TTTC(SCVH)

Tony Edwards,
TTrIC, DipTechTeach(SCVH), CertTechProdEng(UK),
TEng(CEI)(UK), AMI, ProdE

Lynette Eggleston,
HighDipTeaching(SCVM)

Ron H. Erdman,
TTrIC(SCVH)
Julius Fekete,
AssocDipMechEng(RMIT), DipEd(SCVH)
Jenny B. Ferber,
MA(Melb), DipEd(La Trobe)
Anne Fidock,
DipBusStud(Acct)(Bendigo), CertEDP(Bendigo), TTTC(Hawthorn)
Jim Fitzpatrick,
DipMechEng(CIT), TTrIC(SCVW)
Anthoon Flanders,
TTrIC(SCVH)
Thomas Fogarty,
BA(FIT), DipEd(SCVH)
Peter Formston,
DipArt, DipEd(SCVH)
Ian S. Fox,
BScEng(London, External), GradMechE, TTIC(SCVH)
Julie Freil,
BA(Sydney), DipEd(Sydney), Teachers’Cert(Sydney)
Ronald Gascoigne,
DipAppPhys(GIT), BAppSci(Deakin Uni), DipEd(SCVH)
Kamile Georgious,
BScMath, DipEd, DipEDP(Cairo, Egypt)
Henry Gersh,
BSc(Hons), DipEd(SCVH)
Wendy Grant,
BAppSci(RMIT), DipEd(Melb)
Lesley A. Greagg,
BA(WA), MA(Monash)
Guy R. Griffin,
HNCProdEng(Stowe College, Glasgow), AMIProdE, TTrIC(SCVH)
Colin W. Griss,
BEng(Elec)(FIT), DipEng(Elec)(GIAE), CertElecEng, TTechIC(SCVH)
Mike Haberfield,
BEC(Monash), DipEd(Monash)
Eleanor Hart,
Fellowship DipFineArt(Printmaking)(RMIT),
DipArt&Design(Printmaking)(CIT), DipEd(SCVH)
Elizabeth K. Hatte,
BA(Qld), DipEd(Qld)
Jennifer Henderson,
BSc(Melb), DipEd(La Trobe)
Judy A. Herreen,
BA(Adelaide), MA(Melb), DipEd(SCVH)
Rosemary Hickey,
BA(LaTrobe), DipArt(Swinburne), TTTC
Alan R. Hill,
Chartered Engineer, MIProdE, DipProdEng(RMIT), TTIC(SCVH)
Joe Hirst,
TTrIC(SCVH), CertMechEng(CIT)
Dennis Hobbs,
BComm(Melb), DipEd(SCVH)
Gail Hood,  
_BA, GDCS(LaTrobe), TPTC_

Gabrielle Hubbard,  
_BA, DipEd_

Mike Hurley,  
_BA(Hon)(Sydney), DipEd(SCVH)_

Alan Johnston,  
_COT(Elec)(CIT), DipComEng(RMIT)_

David Jones,  
_DipComEng(RMIT), DipEd(SCVH)_

Max Kaplan,  
_DipCriminology(Melb), BA(Monash), BEd(Monash), TSTC(SCVR)_

Jan Keane,  
_BA(Swinburne), DipEd(SCVH)_

Janet E. Kindler,  
_BA(Monash), DipEd(SCVH), GradDipSpecial Education (SCVM)_

Peter T. King,  
_CertTechMech(CIT), TTriC(SCVH)_

Gay Knox,  
_BSc(Sydney), DipEd(Sydney)_

Irene M. Kott,  
_BA(Hons), DipEd(Monash), MEd(Monash)_

Marc Kron,  
_BA(Hons)(Monash), DipEd(Melbourne State College)_

Helen Lay,  
_BA, DipEd(Monash)_

Darryl P. Lemondine,  
_HNC(UK)_

John Lobartolo,  
_CertTechTeach(SCVH), TechCert(Building)_

Sam B. McInnes,  
_TTriC(SCVH), TechCert(Building)(CIT)_

Stuart J. McKenzie,  
_DipEng(Elec)(Swinburne), GradDipEd(SCVH)_

Gavin H. McMurray,  
_CertChem(RMIT), DipTechTeach(SCVH), TTech(SCVH)_

Jane Madden,  
_BA, DipEd(Melb), GradDip(La Trobe), Special Ed(SCVM)_

Helen Maher,  
_AssocDipSecPractice(CIT), TTTC(NSWTE)_

Jim Mathieson,  
_BEco(Monash)_

Chris Matthews,  
_BSc(Hons)(Monash), DipEd(Monash)_

Kevin Maurer,  
_TTriC_

Leonie M. Millar,  
_BA(Monash), DipEd(Monash)_

Stephen Miller,  
_BA(LaTrobe), DipEd(La Trobe)_
Steve Murby,
 BSc(Hons)(La Trobe), DipEd(Hawthorn)
Gary Newitt,
 DipCivilEng, DipEd
Janet Perry,
 BA(Melb), DipEd(Syd), BEd(Monash)
Lynton Perry,
 DipArt & Design (Painting/Printmaking)(CIT), GradDip Vic College of Arts
Ron C. Petersen,
 HTC(NSW), IndElecCert(CTC), DipTT(SCVH)
Vera Petrakou,
 DipCommercial Practice (RMIT), TTTC(Toorak Teachers’ College)
Brian Pierce,
 CertElecEng(Qld), DipTT(SCVH)
Ron E. Pitts,
 DipMechEng(FIT), TTTC(SCVH)
Bruce Prescott,
 BEng(Mech), DipEd(SCVH)
Michael D. Quinn,
 DipEE(FIT), TTTC(SCVH)
Brian Reed,
 DipGenStuds(Swinburne), DipEd(Hawthorn)
Amanda M. Rogers,
 BA(Monash), DipEd(SCVR)
Clive Rogers,
 BEng(Elec), DipEng(Elec)(CIT), TSTC(Mon)
Donald Rosie,
 TTriC(SCVH)
Paul A. Russell,
 BEd(EnvirSci)(SCVR)
Herman Safransky,
 BSc(Eng)(Columbia, USA), DipEd(SCVH)
Damien Sampson,
 BSc(Monash), DipEd(Monash)
Penny Sardone,
 BA(Swinburne), DipEd(Rusden)
Stephen J. Shaw,
 TTriC(SCVH)
Neil R. Skepper,
 TTriC(SCVH)
G. Michael Slusher,
 BA(Miami University, Oxford, Ohio, USA)
Laurie Smith,
 CertIndElec, TechCert(Elec), TTIC
Joan S. Sneddén,
 MA, DipEd, PhD(Melb), DipEdPsychology(Monash), LTh(Melbourne College of Divinity)
Arthur A. Stenhouse,
 CertMechEng(CIT), TTIC(SCVH)
Norman B. Stent,
DipTechTeach(SCVH), CertTechTeach(SCVH)
Anne S. Stocker,
BA(Melb), TSTC(Melb)
Rick J. Stout,
TTriC(SCVH), TechCert(Building)(CIT)
Russell Swann,
BAppSc(RMIT), BEd(WASTC), FRMIT(Physics)
Elizabeth Taylor,
BA(Hons)(University of Kent), GradCertEd(DipEd)
Julie Thomas,
BA(Monash), DipEd(Monash)
Colin L. Thompson,
BSc(Monash), MSc(Liverpool), DipEd(Monash)
Louise Tinney,
BA(Melb), DipEd(LaTrobe)
Christopher J. Tobin,
Dip of General Studies (CIT), TPTC(SCVT)
Ken R. Tonta,
DipMechEng(CIT), TTTC(SCVH)
Dave J. Tout,
BSc, BEd(Monash)
Marie C. Trigg,
BA(Monash), DipEd(New England), TPTC(SCVB)
Ian W. Vizard,
CertElecEng(CIT), DipTT(SCVH)
Ken Walker,
TTTC, ARMIT, BA(Hons)(Monash)
Helen Watson,
BA, DipEd
Kaye-Maree Watson,
Dip of Secondary Teaching, Home Economics (Kelvin Grove College)
Jane White,
BA(Hons), DipEd(Sydney)
Ron Wiggins,
TTriC(SCVH)
Sue Wilder,
BA, DipEd(Monash)
William F. Winford,
DipAd(PCAEd), DipEd(SCVH)
Russell Woodley,
BEd(Rusden), TPTC
Mike E. Young,
TTriC(SCVH)
Nelly Zola,
BA(Melb), DipEd(LaTrobe)

STUDENT INSTRUCTORS
Ronald C. Wilson
Leonard J. Hayes
SUPPORT STAFF
James Impey,
Technical Officer
Dodwell Keyt,
Electronics Technician
Brendon McNamara,
Laboratory Assistant
Alan Rowlands,
Technical Assistant
Eddy Zulian,
Laboratory Assistant

STOREMEN
Ron Eccleston
Roy F. Lawrence,
Senior Storeman
Perc J. Walker,
Senior Storeman
Bill W. Walsh

MAINTENANCE
Alex Sabo
Bob S. Tootell,
Fitter & Turner