CIT 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), and can be reached by private bus lines (consult transport map).
Handbook 1980
Technical and Further Education
Caulfield Institute of Technology

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

ISNN 0156-7772
Information as at August 1979

Type setting by Abb-Typesetting Pty Ltd
83 Little Oxford Street, Collingwood 3066
Printed by Ramsay Ware Stockland Pty Limited
552 Victoria Street, North Melbourne 3051
# CONTENTS

## INTRODUCTION

| 1 |

## STUDENT ADMINISTRATION

- Enrolment Information: 3
- Fees: 4
- Financial Assistance: 5

## STUDENT SERVICES

| 7 |

## REGULATIONS

| 15 |

## PRINCIPAL DATES

| 23 |

## TAFE COURSES

| 25 |

### Middle Level Certificate Courses

- Certificate of Applied Science (Ceramics): 27
- Certificate of Technology (Electrical): 30
- Certificate of Technology (Electronics): 31
- Certificate of Technology (Mechanical Design Drafting): 33

### Subject Synopses

| 35 |

### Trade Apprenticeship and Technician Courses

- Boilermaking and Steel Construction: 65
- Carpentry and Joinery: 66
- Fitting and Machining: 68
- Building (Building Foreman): 73
- Building (Building Inspector): 73
- Municipal Building Inspector: 74
- Mechanical (Mechanical Drafting & Thermal Plant): 74
- Production: 75

#### Subject Synopses

| 77 |

## Accredited Vocational Courses

| 85 |

### Preparatory and Access Programs

| 99 |

### Way-In

| 101 |

### Trade Technical Orientation Programs

| 103 |

### Tertiary Orientation Programs (TOP)

| 104 |

### Applied Science

| 105 |

### Engineering

| 105 |

### Art and Design

| 106 |
INTRODUCTION

CIT has its origin in the Caulfield Technical School which was established to fulfil a need to train servicemen returning from World War I. Classes began in 1922 with the first principal a blacksmith, and the first studies entirely trade-orientated. A decline during the Depression years of the 1930s was followed by expansion after World War II when the school once again met the educational rehabilitation needs of ex-servicemen.

In 1958 the school became the Caulfield Technical College which was affiliated with the Victoria Institute of Colleges in 1965. On 1 January 1968 its name was changed to the Caulfield Institute of Technology and it became an autonomous educational organisation.

CIT is a college of advanced education affiliated with the Victoria Institute of Colleges; it includes a technical and further education (TAFE) component. The advanced education college comprises six Schools:

- School of Applied Science
- David Syme Business School
- School of Engineering
- School of General Studies
- School of Computing and Information Systems
- School of Art and Design.

It offers five levels of tertiary courses leading to recognised qualifications. These are degrees (after four and three years full-time study), diplomas (three years full-time), associate diplomas (two years full-time), graduate diplomas (one year full-time but usually part-time over two or three years), and master degrees (by research and thesis). Studies at all levels may be taken on a part-time basis.

The TAFE component provides courses in five streams bringing together the areas previously covered by the School of Industrial Studies and the School of Orientation Studies. The TAFE streams are made up of

- Middle Level programs, designed to train immediate support personnel for professional officers and higher level management, or to train small operators who need to be proficient in a variety of technical or business tasks;
- Apprenticeship Trades, offering apprenticeship and technician courses;
- Accredited Courses covering a variety of intermediate areas including some special service programs;
- An Access segment which prepares students for admission to other vocational courses, Way-In programs, Trade Technical Orientation Programs, Tertiary Orientation Programs, and Higher School Certificate subjects; and programs for adults, handicapped people, and Women’s Involvement Groups; and,
- Programs for recreational, leisure and self-enrichment, catered for in a great variety of short courses.

These streams will be administered by four Schools:
- Apprenticeship and Skill Training;
- Industrial and Commercial Studies;
- Foundation and Preparatory Studies; and,
- Community and Access Programs.
The main campus of CIT, which includes the six advanced education Schools and part of the TAFE division, is at 900 Dandenong Road, Caulfield East. This is the triangle bounded by Dandenong Road, Railway Parade and Queens Avenue. The nearest railway station is Caulfield and the nearest tram service is provided by the no.3, East Malvern/Darling Road line. The remainder of the TAFE division is located at 1056 Dandenong Road, 1068-1070 Dandenong Road, and 4 Egan Street, Carnegie. The nearest railway station is Carnegie.

The postal address and telephone number for both the main campus and the campus at Carnegie are:

P.O. Box 197
Caulfield East 3145
Telephone: (03) 573 2222

The plan on the inside of the front cover of this Handbook shows the locations of the various buildings, schools, services and administrative units on the main campus.

STUDENT ADMINISTRATION

Introduction

Administration Office

The Student Administration Office is located on Level 1 of the Boykett Building. People seeking administrative assistance should inquire there. Students seeking particular advice on their courses should see the appropriate School Administrative Officer first. Students, or prospective students, should note that all official communications from the Institute to them are over the signature of the Academic Registrar.

Right of Redress

Any student who believes that he or she has been treated unfairly by an academic or administrative decision has the right to seek redress. Students should discuss their complaints with the appropriate Head of Department, School Administrative Officer or Student Administration Services Officer. Unresolved problems may be taken up with the Academic Registrar.

Statutory Declarations

Declarations may be made before a Justice of the Peace or a Commissioner for Affidavits. The following CIT staff are Justices of the Peace:
Mr D. Maling, Senior Lecturer, Administrative and Secretarial Studies.
Dr R. Francis, Senior Lecturer, Applied Psychology.

The following CIT staff are Commissioners for Affidavits:
Mr J. W. Coombe, Admissions Officer
Mr. T. Davies, Lecturer in Chemistry
Mr J. Greenwood, Supply Manager
Mr R. Semmel, Department of Finance and Law
Mr L. Webb, Lecturer in Accounting
Ms L. Zaks, Department of Applied Psychology
Admission to Courses

The pre-requisites for admission to each course set out in this handbook are detailed in the introductory sections of the applicable courses. Inquiries regarding admission to any course should be made to the Admissions Officer, ext. 2005.

Current CIT TOP students

All TOP students wishing to enter the first year of a degree/diploma course should apply through the Victorian Universities Admissions Committee (VUAC).

Special arrangements may be made for students who have completed the tertiary orientation year. As a general rule those students who have satisfactorily completed the TOP year should apply for admission to the degree/diploma course at CIT through VUAC. However, direct entry to some tertiary courses is possible and students should direct their inquiries to the Admissions Officer.

ENROLMENT INFORMATION

Change of Personal Information

Any amendments of personal enrolment details should be made on an SR7 form and submitted to the Student Administration Office as soon as possible after the change.

Identification Cards

A student will be issued with an identification card at the time of his initial enrolment. This card is updated each year on re-enrolment. A fee of $2 is to be paid if a replacement is required. The I.D. card will allow the student to borrow books from the library, to use the facilities of the computer centre and to enter an examination room. In addition, students may use the I.D. card to gain travel and other concessions.

Confirmation of Enrolment

Students will be sent details of their enrolment in mid March. They should check that all the information is correct and complete. If any changes are necessary they should be discussed with the appropriate School Administrative Officer before the last date for change of enrolment.

Corrections of Subjects

Corrections are to be made within six weeks of commencement of semester. Changes made after this date, if approved, are subject to a late fee.

Withdrawals/Refund of Fees

Students who withdraw from their course before commencement will, provided that they notify the Student Administration Office on the appropriate form, receive a refund of fees, less $10.
Students who withdraw with permission within six weeks of commence-
ment, that is, before the last day for withdrawal without penalty, will receive
a refund of half the fees.
Fees are not refundable in any other circumstance.

Fees
Fees are charged for certain services set out below. At the time of writing the
fees for 1980 have yet to be finalised. As a guide however, the following fees
applied in 1979:

General Service
These fees are paid annually, per calendar year, by students enrolled in a
course. The fees are used by the Student Union Council for student and
community services.
Full-time Students $70 (1979)
Part-time Students $36 (1979)
Apprentices $16 (1979)
Special Courses for one semester $6 (1979)

Late Fees (not applicable to some TAFE areas)
Late fees are charged to those students permitted to enrol after the due date.
Semester 1 January $10
Thereafter $15
Semester 2 First week $10
Thereafter $15

Other Fees
Replacement of I.D. card $2
Replacement of second semester enrolment form $2
Requested copies of academic record
  Current Students $4
  Past Students $6
Re-assessment of examination $9.50
Special examination $30

Fines
Fines are charged by the Library for overdue books. If fines are not paid,
examination results may be withheld.

Refund of General Service Fee
Under certain conditions, refunds may be made. See further details under
ENROLMENT PROCEDURES.

Lost Property
All lost property found on campus is to be handed into the Student
Administration Office on Level 1 of the K. H. Boykett Building.
Where there is evidence of identity as to the owner, contact is made by
letter or telephone with that person. Nevertheless, the onus is upon the owner to make the relevant inquiries at the Student Administration counter.

Lost property which remains unclaimed for a period of two months is sent to the Student Union where it is eventually auctioned. The proceeds go to Student Union Funds.

Students are advised that private property is not covered by CIT insurance. CIT, therefore, is not liable for loss or damage to property of students on campus.

Financial Assistance

Tertiary Education Assistance Scheme (TEAS)

The Tertiary Education Assistance Scheme provides financial assistance for full-time students, on a non-competitive, means-tested basis. The maximum allowances in 1979 were $2,075 per annum living away from home, $1,250 living at home. An officer from the Education Department is in attendance in the Boykett Building during peak application periods. Further information can be obtained from the Department of Education, 450 St. Kilda Road, Melbourne, 3004 (phone 267 4700) or from the Welfare Officer at Counselling Services on campus.

Some students may also be eligible for financial assistance under the Adult Secondary Education Assistance Scheme (ASEAS), or the Secondary Allowances Scheme (SAS). Inquiries should be directed to:

The Director,
Victorian State Office,
Commonwealth Department of Education,
450 St Kilda Road, Melbourne, Vic. 3004.
Telephone (03) 268 0444.

National Employment and Training Scheme (NEAT)

Application for NEAT Scheme benefits can be made only through your local Commonwealth Employment Office. The NEAT scheme is designed largely for people made redundant from the work force. If granted, the benefit is made up of two components; a basic component equal to unemployment benefits which includes, where applicable, a sum in relation to dependants; plus an additional component called a training component. Both components vary according to age. In addition, the student may claim from the scheme reimbursement of all compulsory fees, and books and equipment to a maximum of $150 per annum. The reimbursements are not subject to an income test.

Financial Help To Students

Details of scholarships are given below. In special circumstances some students may be eligible for other scholarships provided by ex-service or welfare agencies interested in one-parent families or families facing severe problems. Counselling Services on campus should be consulted for details.
Student Loans and Other Financial Assistance

CIT administers several loan funds to assist needy students to cover living expenses, course materials, or just to help make ends meet. Inquiries may be made to the Student Loan Officer at the Student Administration Office, Level 1, Boykett Building, or the Student Union, or Counselling Services.
The Careers and Employment Service is available to intending students and to all enrolled students. A full careers service is offered with emphasis on assisting students in obtaining full-time employment on completion of their studies.

The work of the service includes:

- Counselling prospective and present students on the vocational implications of courses.
- Assessing individual students' abilities, skills and interests with a view to guiding their career choices.
- Informing prospective, present and past students on employment and career prospects. This activity is backed by a comprehensive career information centre.
- Assisting students in obtaining permanent, part-time and vacation jobs. This activity includes employer contacts, organisation of campus interviews, career seminars, workshops for job-seeking skills e.g., application writing and employment interviews.
- Maintaining and improving contact with employers to ensure that they understand the value of recruiting people with tertiary education.

The Careers and Employment Service is located in Rooms A2 01 and A2 15 on Level 2 of the K.H. Boykett Building; ext. 2164 or 2322.

### Computer Centre

#### Introduction

The Computer Centre was established as a separate department in 1969. In addition to servicing the requirements of CIT students, staff and administration, it is a centre of the VIC network which provides on-line and off-line facilities to a number of other colleges. Demonstrations and a limited amount of processing are provided for surrounding secondary schools.

The first computer installed at CIT was a Ferranti Sirius in 1963. A CDC 160A was installed in 1965, an ICL 1903A in 1969, the 1904A in 1970 and DG C330 in 1978. Another new system is to be installed for the 1980 academic year.

#### Hardware

**ICL 1904A CPU**

- 96K 24-bit words, 650nS/word core, high speed drum for operating system
- use 2M character, head per track controller and 2 exchangeable disk pack units — 60M characters each 2 controllers and 4 exchangeable disk pack units — 4M characters each 2 controllers and 6 mag. tape units, 7 track, 556 bpi
- 1600 cpm card reader
- 1350 lpm line printer
- paper tape reader 100 ch/S
2 communications processors and ICL 7901 Communications processor
ICL 7903 servicing 7020-type remote CR-LP-TT terminals and local and
remote teletype terminals.
Operating System: ICL George 3; multi-programming, multi-access, time-
sharing, remote job entry.

D.G. Eclipse C 330
512K bytes of ERCC MOS memory and MAP controller and 2
exchangeable disc pack units 96M Byte each controller and mag. tape unit, 9
track, 800 bpi
600 cpm card reader
300 lpm line printer
Communications equipment: multiplexors servicing remote interactive
terminals.
Operating System Data General AOS: multi-programming, multi-access,
timesharing.

Software
ICL 1904A CPU
Includes COBOL, ALGOL 60, ALGOL 68, FORTRAN, assembler
(PLAN), RPG, BASIC and JEAN. A full range of commercial,
mathematics, scientific, social sciences and engineering applications
packages and subroutines is available.

D.G. Eclipse C330
Includes COBOL, FORTRAN, BASIC, Assembler and INFOS.

Access for Users
Data preparation services are provided, together with key punches for self-
service operation (F504).

All input (data prep. and computer processing) and output is handled
through the Input/Output room (F506). An automatically answered report
on job processing, etc., is available at all times on 573 2261.

A user advisory service for staff and students is available during the duty
programmer hours — see the notice on the duty programmer room door
(F505). Copies of most manuals are held there.

The most frequently used manuals are also available in the CIT library
reference section.

Demonstrations may be arranged upon application to the Operations
Manager. Access to the computer rooms is strictly limited to those
specifically authorised by the Computer Centre management.

Terminals for interactive use by students and staff are located in F525 and
in various departments throughout the campus.

Further Information
One copy of the Computer Centre Users’ Handbook is issued free to each
user on application to the I/O room. Bulletins and newsletters can also be
obtained at the I/O counter.

Computer Centre notices are displayed outside the I/O room and on the
notice board.
Counselling Services

Psychologists, social workers and welfare officers are employed by the Institute as counsellors to assist individuals, couples, families and other groups in solving problems associated with personal effectiveness, relations with others and the general pressures of higher education. These counsellors are available for free, confidential consultations through the entire year and can be contacted for appointments through the secretary, 573 2500.

Groups

Students seeking a growth experience without reference to a specific problem may take part in one of several self-awareness groups offered by Counselling Services. Apart from accepting the rule of confidentiality, each group decides its own objectives and way of working.

Study Problems

All members of the Counselling Services are interested in study and examination problems. It is often more useful, however, to discuss a specific study problem with your lecturer or another person in the department. Many departments already have a student advisor or tutor scheme. If the staff member cannot help, he or she will call in others. A counsellor is available to support and advise staff members who are working with students on educational problems.

Process Consultation

CIT staff at all levels and members of the Student Union have from time to time approached Counselling Services for assistance in increasing their effectiveness in the work environment. Any department or work group can approach us for information or services in this area.

Children's Service

The Children's Service gives support to people investigating various child care options. These include the CIT Group Care Centre and a Family Day Care Service, the supervised care of a small group of children in a private home, being run jointly by CIT and Caulfield City Council.

Housing

CIT does not have any on-campus accommodation. A list of accommodation close to campus is available and you are welcome to drop in and look through it. Advice is also available on rental agreements, tenants rights and housing costs.

Student Loans and other Financial Assistance

Because new schemes for helping students to enter or remain in higher education become available from time to time, it is best to discuss any financial problems with a welfare officer.

Overseas Students

Coming to a foreign country brings many new experiences and problems. New experiences will include adjusting to climate and foods and relating to
new customs and people: the problems will range from visas and complicated administrative requirements to communication difficulties and language handicaps.

Counselling Services have investigated services available to overseas students and now have good liaison with relevant government departments and community groups.

The Australian Development Assistance Bureau (ADAB), Department of Foreign Affairs, is the Government Authority responsible for the welfare of all private and sponsored overseas students from developing countries.

The Bureau’s welfare services include confidential social work counselling for overseas students who encounter personal, medical, or family problems. Students wishing to contact ADAB can do so directly, or via CIT Counselling Services.

A welfare officer (ext. 2154) will help make appropriate contacts on request. The CIT Overseas Students’ Association which runs an orientation program and various social and cultural activities also seeks to bridge any gaps between Australian and visiting students.

Legal Advice
Counselling Services are able to assist you with legal advice and information.

Part-time Students
As well as the pressures full-time students experience, part-timers often have additional career or marital stress because of their studies. After hours appointments can be made by phone with counsellors at a mutually suitable time. Counselling Services will open some evenings to cater for part-time students.

Getting in Touch
Very often there is no specific problem, just a need to meet other people, find friends or form an interest/self-help group. Counselling Services has many resources (people, contacts and information) which we welcome you to share. Or if you just want to drop-in and talk over a cup of coffee, that’s OK too.

Chaplaincy
A pilot chaplaincy has been established and the chaplains are available on a part-time basis. Contact and appointments can be made through Counselling Services secretary.

Health Service
The Health Service on the main campus may be contacted on 573 2573 and at SIS Carnegie, Room 314 on 573 2011, where nursing sisters are available every day to give first aid, carry out immunisation, give contraceptive and other advice and to arrange appointments for the doctors, who are in attendance for part of each day.

ALL SERVICES ARE COMPLETELY CONFIDENTIAL
Counselling Services are located at 7 Princes Avenue, between the main campus and the Caulfield Railway Station.

Telephone, all hours: 573 2500.

Appointments can be made after hours by arrangement with the secretary.

**Educational Development Unit**

The Educational Development Unit provides a range of services, including advice on academic methods, staff development programs and educational media. EDU services are directed mainly to members of staff, but some facilities are available for use by students.

**Educational Development Services**

Objectives:
- To provide in-service education which will assist in the improvement of teaching effectiveness;
- to investigate problems of teaching and learning at CIT;
- to encourage and assist lecturers to use appropriate student assessment methods;
- to advise lecturers on all aspects of the application of educational technology of their teaching; and
- to assist staff with course development and evaluation.

In-service education is promoted by seminars and workshops, and individualised assistance. Each year CIT participates in a joint educational conference with Prahran CAE.

**Media Services**

Objectives:
- To produce a range of software appropriate to the needs of teaching staff;
- to review developments in educational hardware and report on their suitability;
- to recommend equipment standards for educational technology within CIT and co-operate with other institutions in the standardisation of such equipment;
- to co-ordinate the use of audio-visual equipment in lecture theatres;
- to provide a 16mm film service, with emphasis on the training of members of staff in 16mm film projection;
- to co-operate with the Library in the development, storage and presentation of non-book materials acquired or produced at CIT.

EDU facilities allow for the production of the following educational software:
- 35mm slides
- overhead projector transparencies
- graphics
- black and white prints
- video cassettes
- audio cassettes
- synch/slide programs.
A program of recommending audio visual equipment standards is in operation and departments are required to check with the EDU before new equipment is purchased.

The EDU is located at 888 Dandenong Road (enter through staff car park entrance). Telephone inquiries may be made on either ext. 2376 or 2323.

The Library

The Library — located on Levels 3 and 4 of the Boykett Building — occupies what will become a central position on the proposed extended campus. As an addition to the main campus Library a branch library at Carnegie has also been set up to cater specifically to the needs of the TAFE division located there.

The CIT Library’s principal aim is to serve the information needs of a wide variety of users, by complementing and supplementing the courses of study offered by the various advanced and TAFE schools at CIT.

The selection of resources to expand the Library’s collection is carried out by professional librarians working in collaboration with academic staff. Constant vigilance is maintained to ensure that resources purchased are highly relevant to existing and approved new courses. In addition, extra-curricular and co-curricular material is stocked, relevant to the areas of human development.

The CIT Library, unlike most other academic libraries, has a very small number of collections of materials due to a policy of grouping material in a manner most suited to the needs of its student users. Resources are grouped into three major collections. Within these collections, principal emphasis is given to subject grouping rather than grouping by format (for example, big books, extra big books, slides, videos, audio cassettes, etc., are not shelved separately simply because their shape is different from the norm).

The Reference Collection comprises such items as dictionaries, encyclopaedias, handbooks, bibliographies, atlases, periodical indexes and abstracts and is located on Level 3. Because of its nature and the need for it to be available for immediate consultation, this collection is not available for loan.

The Periodical Collection is located on Level 3. Most of the 2,300 periodical titles are available for loan and many backruns of titles are held on microfilm; they are shelved with the hard copy of the title. Library staff will assist you in the operation of reading and printing equipment which is located nearby.

The Main Collection is located on Level 4. It comprises books and non-book materials (audio cassettes, video cartridges, slides, kits, etc.) conveniently arranged by subject grouping. The collection is still growing. It comprises approximately 70,000 book titles. (Allowing for additional copies and audio visual items, the collection size is approximately 100,000 items).

The staff manning the Library’s information desk (‘ASK ME’ is its motto) are specialists in giving assistance to the Library’s users. They are professionals trained not only to serve the information needs of users, but to equip them with skills necessary to achieve a level of independence in their
own information retrieval activities. This individual assistance is supplemental to the formal reader education programs which are tied to the informational needs arising from courses and are conducted in co-operation with academic departments. These programs reach all first year and final year students and it is hoped, in the near future, will reach every student every year.

The Annexe Branch Library

This Library is a branch of the main CIT Library and is located on Level 2, 1068 Dandenong Road, Carnegie.

The Library provides print and AV resources, equipment, and reference and general user services to support all teaching areas. As well as on-course material, some fiction and general interest titles are held. Through branch or direct loans, the staff and students at Carnegie have access to the extensive holdings at the main CIT Library.

The Library features an integrated collection of approximately 4,000 books, 100 periodical titles, and 200 AV items shelved in one continuous sequence, which allows the user immediate access to all material on any topic, regardless of format.

Two additional collections, shelved separately, are current Australian Standards and Manufacturers’ Trade catalogues, both of which are indexed for easy use. New items are regularly added in all areas, and students and staff are welcome to suggest additional titles for purchase.

With the co-operation of teaching staff, the Library staff provide formal and informal reader education programs for all new students. The content and extent of this instruction is varied according to the needs of individual classes, and all students are encouraged to ask for further help at any time.

Student Union Council

By taking a course at CIT you are not only studying with a view to gaining a professional qualification, you become part of a unique community. During your stay at Caulfield it is hoped you will take advantage of the opportunities available to develop your specific interests. The SUC provides the resources to benefit students not only academically but also socially and culturally.

The SUC exists as an autonomous body within the CIT community. It is elected annually and is the only representative body of the student union. All students are automatically members of the Student Union through their general service fees paid on enrolment.

The SUC reports back to the students on what they are doing through the campus newspaper and an annual general meeting held in March each year.

Six standing committees plus an executive comprise the SUC. The Activities Committee organises recreational and cultural events including balls, a revenue, orientation week, union nights and films.

The Sports Committee provides a wide range of sports in inter-college competitions and an annual carnival as well as price concessions for squash and other activities.
The Welfare Committee is involved in specific issues related to the welfare of the general student body including emergency loans and is available for counselling referrals.

The Community Affairs Committee covers five portfolios: race relations, unemployment, the environment, women, and education. Generally this committee links CIT with the broader community in relation to political, environmental and social issues.

The Media Committee co-ordinates all media outlets; it produces the weekly newsheets Output and Input, publicises weekly events through posters and the What's on Today blackboard.

The campus newspaper, the Naked Wasp aims to keep students informed on CIT news and student affairs generally. Students are welcome to participate, through the Naked Wasp Collective in the production of the paper, and contributions in the form of news, articles, reviews, letters, etc., are always needed.

The Education Committee is comprised of representatives of each of the six schools at CIT. It brings to the attention of the Union problems of an educational nature on campus as well as supporting the student representatives on Schools Boards.

The SUC employs a full-time shop manageress, two part-time Secretaries and a Union Officer. The Union Officer, Steve Dobson, has various tasks such as building a resource file, conducting elections, undertaking research, writing submissions, and promoting the SUC so that it becomes better known and more accountable to the students. The two part-time secretaries, Joyce and Helen, deal with all student enquiries concerning the Union and are located in the Student Union Building.

The CITSU Bookshop on the second level of the Boykett Building (behind the bank) operates a secondhand book exchange, and an efficient ordering service, and offers discounts on text and general books to all students. A wide selection of calculators and drawing materials is also available.

The Union Snack Shop located in the student union lounge sells a wide range of goods at discount prices.

The SUC is a member of the Australian Union of Students which supplies benefits such as a health and insurance scheme as well as representing Australian students within Australia and internationally.

The SUC has a number of services for students such as van and barbecue hire, printing facilities, bike shed, emergency housing, a music room, discount booklet, cheap air flights and many more. The SUC also finances over 50 clubs and societies catering for all tastes.

In addition, the SUC runs a Community House at 9 Princes Avenue which is used as a meeting room for clubs and societies, yoga, guitar lessons, a food co-op, cooking demonstrations, and many other activities. More information on these services can be found in the CITSUC Handbook.

It is in the interests of all students to take an active interest in the Student Union. It is your union and its effectiveness depends on your use of it.
REGULATIONS
REGULATION 4 — EXAMINATIONS

The following regulations apply to examinations set and conducted under the control of Caulfield Institute of Technology.

Where examinations are conducted under the control of the Victorian Education Department, the TAFE examination instruction TS 9, and VUSEB regulations apply.

4.1 Definitions
In this regulation, unless the context requires otherwise, the following meanings shall apply:

Duty Examinations Officer — means the person in charge of the Examinations Centre for a particular examination session.

Examination — means any written test conducted under the control of the Academic Registrar.

Further test — means an additional assessment, whether by the setting of extra assignments or by further written or oral examination, required of the student by the Head of Department responsible for a subject in order to decide between pass and fail in that subject.

Irregular conduct — means conduct which gains or which may gain an unfair advantage to a student in any assignment, test, examination, or the like.

Examinations Officer — means an officer of the Institute appointed by the Academic Registrar to organise and supervise the conduct of examinations of the Institute.

Overseas student — means a student whose place of permanent residence is not within Australia or its territories.

Supervisor — means any person appointed by the Academic Registrar to supervise an examination of the Institute.

4.2 Entries
4.2.1 To be eligible to present for an examination of the Institute a candidate must either

(a) be enrolled for classes in the subject of the examination (which includes payment of all prescribed fees), and have shown satisfactory attendances at classes pertaining to the subject and have completed and submitted satisfactory reports, laboratory work, projects or assignments and satisfactorily participated in group discussions as are appropriate; or

(b) have been accepted by the Institute as eligible to sit for the examination without attending classes, in which case the necessary approval form, certified by the Head of Department responsible for the subject must be lodged at the Student Administration Office, and have paid any prescribed fee.
4.2.2 Any candidate who has been refused permission to sit for an examination may appeal to the Academic Registrar.

4.3 Time-tables, General Procedure

4.3.1 Notification of Time and Place of Examination

4.3.1.1 No information relating to the time or place of an examination will be given over the telephone.

4.3.1.2 The only official notification of examination times and room locations is on lists displayed on the Institute examination notice boards.

4.3.2 Clash of Subjects in the Examination Time-Table

4.3.2.1 Where a candidate wishes to sit for two examinations held at the same time, the Academic Registrar may approve his taking one of these examinations at another time on the same day, provided that he is under appropriate supervision between the times for the two examinations.

4.3.2.2 Application should be made in writing to the Academic Registrar through the Student Administration Office.

4.3.3 Absence from an Examination

4.3.3.1 Missing an examination through mis-reading the time-table does not entitle a candidate to any further examination.

4.3.3.2 Where a candidate is absent from an examination owing to illness, the Examinations Officer shall, on viewing a satisfactory medical certificate within 48 hours of the examination, inform the Head of Department responsible for the subject, who may grant such further test as will enable an assessment of the candidate to be made.

4.3.4 Procedure in the Examination Room

4.3.4.1 Normally candidates will be admitted to the examination room ten minutes before the starting time of all examinations. During this period they may study the examination paper, but no writing will be allowed.

4.3.4.2 Unless given the special permission of the Duty Examinations Officer, no candidate shall enter the examination room later than half an hour after the examination has commenced nor shall any candidate be allowed to leave the examination room before the expiration of half an hour from the start of the examination; and no candidate, having once left the room, shall be permitted to return unless during such absence he has been under supervision.

4.3.4.3 No writing will be permitted after the supervisor in charge has instructed candidates to cease writing.

4.3.4.4 Smoking is not permitted in an examination room.

4.3.4.5 No sources of information other than those named by the examiner, except as provided for in Clause 4.9.1 of this regulation, shall be brought into the examination room.
4.3.5 Consultation with Examiner
No candidate is permitted to consult the examiner concerning his performance at any examination except as shown in Clause 4.5 and 4.6 of the Regulation.

4.3.6 Irregular Conduct
Irregular conduct is a serious offence for which a number of penalties can be imposed, the most severe of which is exclusion from the Institute.

4.4 Assessment of Assignments, Projects, or Other Material
4.4.1 Where an assignment, project, or other material, forms part of the formal assessment requirement of a subject, such material must be submitted for assessment on or before the date notified by the Head of Department responsible for teaching the subject.
4.4.2 Where any project, report or other material is submitted after the due date, it will not be assessed until the normal time in the following year or semester as appropriate, unless approval has been given by the Head of Department.

4.5 Results of Assessment
4.5.1 Notification of Results
4.5.1.1 No information concerning the results of an assessment will be given over the telephone.
4.5.1.2 The only official results of assessment are those provided by the Academic Registrar. Such results are displayed on notice boards at the Institute.
4.5.1.3 After the official publication of results a candidate is permitted to obtain from the examiner his final mark where numeric marks are awarded.

4.5.2 Gradings used in Final Assessment
The results of the final assessment of a student will be denoted by one of the symbols for examinations conducted by CIT:

- HD High Distinction
- D Distinction
- C Credit
- P Pass
- PP Pass (Lower Standard)
- X Assessment Deferred
- NA Not finally assessed. Subject being examined over more than one semester
- E Exempt
- N Fail — Assessment Deferred
- WN Fail — Withdrawn without permission

For examinations conducted by the Department of Education:
- C Pass Credit
- P Pass
- S Supplementary
- N Fail
4.6 Re-assessment and Report in any Subject

4.6.1 A candidate may obtain a re-assessment and report on an examination provided:

4.6.1.1 the examination was conducted under the control of the Academic Registrar;

4.6.1.2 it was the final examination in that subject;

4.6.1.3 payment of the prescribed fee has been made.

4.6.2 After the official publication of results a candidate is permitted to see his examination script.

4.7 Examinations Held at Centres Away from the Institute

A candidate who wishes to take an examination at a centre other than the Institute should lodge a written application addressed to the Academic Registrar at least four weeks before the date of the examination. The applicant should state why he cannot attend the examination at this Institute and what arrangements are proposed for supervision. Such supervision must be provided by an educational institution or other organisation approved by the Academic Registrar of this Institute. The candidate is required to make his own arrangements with the supervising organisation for the payment of any expenses thereby incurred.

4.8 Further Tests

4.8.1 The Head of Department responsible for a subject may require a candidate to take a further test in the subject.

4.8.2 If a further test in a subject is required, it will be conducted as soon as practicable after the annual or semester examination.

4.8.3 It is the responsibility of students to be available at short notice after the annual examination.

4.9 Special Provision for Overseas Students

4.9.1 Overseas students whose native language is not English may be permitted to take into the examination room a dictionary to be used solely for the purpose of translation.

4.9.2 Applications for such permission should be made in writing to the Academic Registrar.

4.10 Special Examinations

4.10.1 In exceptional circumstances the Board of Studies may approve a special examination in a single subject for a student provided that in addition —

4.10.1.1 the applicant is a candidate for an award made or recommended by CIT;

4.10.1.2 the applicant presented for the examination in that subject at the examinations immediately prior to the date of application;

4.10.1.3 the subject concerned is the only one remaining for the completion of the award;

4.10.1.4 the applicant has paid the prescribed fee.

4.10.2 Applications setting out the exceptional circumstances together with the prescribed fee must be lodged at the Student Administration Office not later than 31 July for the first semester examinations, or 31 January for second semester examinations.
4.11 Special Consideration

4.11.1 A student who considers that his preparation for an examination has been hampered by factors outside his control may apply to the Head of Department teaching the subject for special consideration.

4.11.2 In considering such applications, the Head of Department may require an applicant to produce further evidence.

4.11.3 Applications for special consideration must be submitted to the Head of Department or the examinations supervisor prior to commencement of the examination for which consideration is sought; in a subject where assessment is continuous, applications must be lodged with the Head of Department teaching the subject not later than the date published in the current Handbook on which lectures for the semester cease.

5.3 Power of Head of School to Exclude
If a student is liable to be refused enrolment under this regulation the Head of School appropriate to the course shall decide whether or not the student shall be refused enrolment or whether the student shall be permitted to enrol on such conditions as the Head of School may determine.

REGULATION 7 — STUDENT DISCIPLINE

7.1 Definitions
In this regulation unless the context otherwise requires —

7.1.1 misconduct means conduct on the part of a student which is prejudicial to the good order and government of the Institute, impairs the reasonable freedom of other persons to pursue their studies or research in the Institute or to participate in the life of the Institute. It includes wilful disobedience to a reasonable direction of an officer of the Institute and any breach of the regulations which affect students which may from time to time be adopted by the Council of the Institute. Without prejudice to the generality of the foregoing, the expression includes:

(a) wilfully obstructing any teaching activity, examination, official meeting, or official proceeding of the Institute;

(b) failing to leave any building or part of a building of the Institute upon being directed by an officer of the Institute to leave it;

(c) entering any place within the premises of the Institute which a student is forbidden to enter by an officer of the Institute, by a regulation, or by a publicly displayed notice;

(d) failing to obey the rules laid down and displayed by public notice by the Head of Department, the Chief Librarian, or the Manager of the Computer Centre for the conduct of students in a particular area;

(e) acting dishonestly or unfairly in connection with any examination of the Institute or the preparation or presentation of any essay, exercise, or thesis;
(f) divulging any confidential information concerning any Institute matter;
(g) wilfully obstructing or attempting to deter any employee of the Council of the Institute in the performance of his duties;
(h) wilfully damaging or wrongfully dealing with any property in or upon Institute premises;
(i) assaulting a person on Institute premises.

7.1.2 officer of the Institute means a member of the Council of the Institute or any person whose place of employment is at the Institute;
7.1.3 student means an enrolled student of the Institute other than one who is a full-time member of the staff of the Institute;
7.1.4 supervisor means any person appointed by the Academic Registrar to supervise an examination of the Institute.

7.2 Discipline Committee
7.2.1 There shall be within the Institute a Disciplinary Committee comprising five members of whom three shall be chosen from time to time from the Director, the Heads of Schools, the Heads of Departments, other members of the academic staff and the remaining two shall be the President of the Student Union Council and a member of the Student Union Council. Three members shall constitute a quorum.
7.2.2 The Director shall select the three academic members of the Committee and appoint a Chairman.
7.2.3 The Academic Registrar or his nominee shall be Secretary to the Discipline Committee.
7.2.4 No person who is directly involved in a matter referred to the Discipline Committee may serve as a member of or act as Secretary to that Committee which hears the matter.

7.3 Procedure
7.3.1 On reference in writing to the Academic Registrar by a member of Council, the Director, Deputy Director, Secretary, a Head of School, a Head of Department, Chief Librarian, Computer Manager, Financial Controller, Academic Registrar, Examinations Officer or the Student Union Council the Discipline Committee shall investigate matters which involve any question as to misconduct by a student.
7.3.2 Within three days after the reference of the alleged offence to the Academic Registrar the Secretary of the Discipline Committee shall arrange for a meeting of the Committee to be held as soon as possible.
7.3.3 When the Director or a Head of School considers that the conduct of a student is such as to warrant reference to the Discipline Committee, he may suspend the student from use of the facilities of the Institute until the Discipline Committee has met and has decided the matter.
7.3.4 A student charged with an offence shall have the right to be heard by the Discipline Committee. The student charged shall be notified of the date, time and place at which the Discipline Committee will meet. This notification shall be by letter or
telegram dispatched to the address shown in the records so as to give him at least 24 hours notice of the hearing.

7.3.5 The decisions of the Discipline Committee on any matter shall be by a majority vote: any matter on which the vote is tied shall be determined in favour of the student.

7.3.6 A report of all proceedings of the Discipline Committee shall be placed before the Council as soon as practicable after the meeting of the Committee.

7.4 Penalties

7.4.1 Penalties Imposed by a Discipline Committee

7.4.1.1 The Discipline Committee shall have power to impose any one or more of the following penalties it sees fit:
(a) a reprimand;
(b) a fine not exceeding $100;
(c) suspension of the right to enter the Institute premises or to enter any part thereof, or use all or any particular facilities of the Institute for a specified period not exceeding one academic semester;
(d) suspension from attendance at examinations held in a particular period or cancellation of examination scripts, or both;
(e) cancellation of results of cumulative assessment in a subject or subjects;
(f) suspension of the right to re-enrol for a particular course or any part of a course for a specified period not exceeding one academic year;
(g) permanent expulsion from the Institute.

7.4.1.2 The power to impose penalties shall also include power to take all consequential action as may reasonably be required to give effect to and enforce such penalties including a power to impose any alternative penalty in default of the observance or performance of original penalty.

7.4.1.3 All penalties imposed by the Discipline Committee shall take effect immediately except in the case of permanent expulsion, in which case the Discipline Committee may order the immediate suspension of the student concerned, pending the confirmation or variation or quashing of the penalty by the Council at its next meeting.

7.4.2 Compensation for Damage

The Discipline Committee may require a student to pay to the Institute due compensation for damage to Institute property caused by him.

7.4.3 Summary Penalties — Authority of Members of Staff

7.4.3.1 Any member of academic staff may exclude a student from the remainder of any lecture or laboratory class for any misconduct.

7.4.3.2 The senior member of the library staff present at the time may exclude a student from the use of the library for the remainder of a day for any misconduct.
7.4.3.3 The senior member of staff of the Computer Centre present at the time may exclude a student from the use of the Computer Centre for the remainder of a day for any misconduct.

7.4.3.4 Summary penalties imposed under sections 7.4.3.1, 7.4.3.2 and 7.4.3.3 must be reported to the Head of the Department as soon as possible.

7.4.4 Summary Penalties — Authority of Heads of Schools and Heads of Departments

7.4.4.1 A Head of School may exclude a student from use of part or all of the Institute premises for a period of up to one week for misconduct.

7.4.4.2 The Head of any Department may exclude a student from use of part or all of the Institute premises for a period of up to two working days for misconduct.

7.4.4.3 All penalties imposed under sections 7.4.4.1 and 7.4.4.2 are to be reported in writing to the Academic Registrar as soon as possible.

7.4.4.4 The Academic Registrar shall at the end of each month report in writing to the Director all such summary penalties of which he has had notice.

7.4.4.5 Any student upon whom a penalty has been imposed under sections 7.4.4.1 and 7.4.4.2 hereof may appeal to the Director whose decision in relation to such an appeal shall be final.

7.4.4.6 All such appeals must be submitted within two working days after the student has been notified of the imposition of the penalty.

7.5 Authority of the Director

7.5.1 In the case of misconduct the Director has power to suspend a student from the use of Institute premises and facilities for a period no longer than one week.

7.5.2 The Director has power to require a student to pay to the Institute due compensation for damage the student has caused to Institute property.

7.6 Appeals

A student may appeal to the Discipline Committee against any penalty imposed on him under Section 5.1 and against any order to pay compensation for damages under Section 5.2. Any such appeal shall be in writing, addressed to the Academic Registrar and delivered to him within three working days after the student has been notified of the penalty or the order to pay compensation for damages.

REGULATION 8 — WAIVING OF PRESCRIBED FEE

Where a fee is prescribed under the terms of the regulations, other than that governing student discipline, it may be waived at the discretion of the Academic Registrar. For the purposes of this regulation any fee so waived will be deemed to have been paid.
Principal Dates, 1980

<table>
<thead>
<tr>
<th>Month</th>
<th>Date(s)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>28</td>
<td>Australia Day</td>
</tr>
<tr>
<td>February</td>
<td>4 to 8</td>
<td>Orientation Week</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Classes begin</td>
</tr>
<tr>
<td>March</td>
<td>10</td>
<td>Labour Day</td>
</tr>
<tr>
<td>April</td>
<td>3 to 9</td>
<td>(inclusive)</td>
</tr>
<tr>
<td></td>
<td>4 to 8</td>
<td>Easter break for apprentices and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Middle Level certificate students</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Classes begin</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Anzac Day</td>
</tr>
<tr>
<td>May</td>
<td>10</td>
<td>Term I ends</td>
</tr>
<tr>
<td></td>
<td>19 to 23</td>
<td>Mid-semester break</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Term II begins</td>
</tr>
<tr>
<td>June</td>
<td>16</td>
<td>Queen's birthday</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Examinations begin</td>
</tr>
<tr>
<td></td>
<td>30 to</td>
<td>Semester break</td>
</tr>
<tr>
<td>July</td>
<td>11</td>
<td>Classes begin</td>
</tr>
<tr>
<td>August</td>
<td>23</td>
<td>Term II ends</td>
</tr>
<tr>
<td></td>
<td>25 to 29</td>
<td>Mid-semester break</td>
</tr>
<tr>
<td>September</td>
<td>7</td>
<td>Term III begins</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Show Day</td>
</tr>
<tr>
<td>November</td>
<td>4</td>
<td>Melbourne Cup Day</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Tertiary orientation examinations begin</td>
</tr>
<tr>
<td>December</td>
<td>19</td>
<td>Term III ends</td>
</tr>
</tbody>
</table>
MIDDLE LEVEL CERTIFICATE COURSES
MIDDLE LEVEL CERTIFICATE COURSES

Certificate of Applied Science (Ceramics) .................................................. 27
Certificate of Applied Science (Construction Materials and Practice) .......... 28
Certificate of Technology (Electrical) ........................................................... 30
Certificate of Technology (Electronics) ......................................................... 31
Certificate of Technology (Mechanical) ....................................................... 32
Certificate of Technology (Mechanical Design Drafting) ............................. 33
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 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</th>
<th>Code</th>
<th>Subject</th>
<th>Unit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CM12</td>
<td>Ceramic Calculations 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CM22</td>
<td>Ceramic Calculations 2A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CM23</td>
<td>Ceramic Calculations 2B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS11</td>
<td>Ceramic Science 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS21</td>
<td>Ceramic Science 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS31</td>
<td>Ceramic Science 3A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS32</td>
<td>Ceramic Science 3B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT11</td>
<td>Ceramic Technology 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT21</td>
<td>Ceramic Technology 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>CC11</td>
<td>Communication &amp; Report Writing 1A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CC12</td>
<td>Communication &amp; Report Writing 1B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CM11</td>
<td>Computations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CX11</td>
<td>Laboratory Techniques</td>
<td>1</td>
</tr>
</tbody>
</table>
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 subjects.

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

**Course Details**
The course can be offered in two modes: part-time — four years’ duration involving one half day and one evening per week; or, semi full-time — the first two stages may be taken as one year full-time, the remaining two stages must be taken as part-time with concurrent related employment.
<table>
<thead>
<tr>
<th>Category 1</th>
<th>Code</th>
<th>Subject</th>
<th>Unit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CC11</td>
<td>Communication &amp; Report Writing 1A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CC12</td>
<td>Communication &amp; Report Writing 1B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CM11</td>
<td>Computations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CF21</td>
<td>Concrete Technology 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CD11</td>
<td>Drafting Technology 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CL21</td>
<td>Geology (Materials)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CX11</td>
<td>Laboratory Techniques</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS13</td>
<td>Materials Science 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS23</td>
<td>Materials Science 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CH21</td>
<td>Materials Technology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CX14</td>
<td>Materials Testing Techniques 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CX24</td>
<td>Materials Testing Techniques 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT14</td>
<td>Principles of Plant Operations (Materials)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT15</td>
<td>Soil and Rock Technology 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS12</td>
<td>Construction Surveying</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CM21</td>
<td>Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>XV41</td>
<td>Supervision 1A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>XV42</td>
<td>Supervision 1B</td>
<td>1</td>
</tr>
<tr>
<td>Category 2</td>
<td>CN11</td>
<td>Bituminous Materials 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CN21</td>
<td>Bituminous Materials 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CF31</td>
<td>Concrete Technology 2A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>XQ31</td>
<td>Construction Operations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CD21</td>
<td>Drafting Technology 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CX25</td>
<td>Instrumentation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CQ31</td>
<td>Quality Control</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT13</td>
<td>Plastics Technology 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT23</td>
<td>Plastics Technology 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT22</td>
<td>Rubber Technology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CX33</td>
<td>Work Project</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT25</td>
<td>Soils and Rock Technology 2A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CT26</td>
<td>Soils and Rock Technology 2B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CF32</td>
<td>Concrete Technology 2B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CS33</td>
<td>Field Testing Monitoring</td>
<td>1</td>
</tr>
</tbody>
</table>

**Middle Level Engineering**

The Middle Level Engineering area provides training at the para-professional level. Graduates are classified as ‘Engineering Associate’, ‘Engineering Assistant’, ‘Technical Officer’ etc. Their role is to support professional engineering activities such as development, design, erection, commissioning, operation and/or maintenance of engineering equipment, design drafting, field/laboratory activities inspection, supervision, etc. The para-professionals are often involved in assisting management, customer and technical sales liaison.

**Certificate of Technology**

The Middle Level Engineering Certificates of Technology are job-orientated and highly flexible — problem identification and solving is 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 and technical drawing or equivalent qualification, or,
(b) Sufficient experience and maturity to successfully undertake the course.

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

Award
A Certificate of Technology will be awarded on successfully completing:
(a) at least 30 academic units; and
(b) a minimum of two years relevant industrial experience

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

<table>
<thead>
<tr>
<th>CERTIFICATE OF TECHNOLOGY (Electrical)</th>
<th>Course Code: HE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage</td>
<td>Subject</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Communication and Report Writing</td>
</tr>
<tr>
<td></td>
<td>Mathematics 1E</td>
</tr>
<tr>
<td></td>
<td>Applied Electricity 1H</td>
</tr>
<tr>
<td></td>
<td>Physics 1H</td>
</tr>
<tr>
<td></td>
<td>Electronics 1H</td>
</tr>
<tr>
<td></td>
<td>Wiring and Assembly</td>
</tr>
<tr>
<td></td>
<td>Methods 1H</td>
</tr>
<tr>
<td></td>
<td>Social Science 1H</td>
</tr>
<tr>
<td></td>
<td>Tutorials or Projects</td>
</tr>
<tr>
<td>2</td>
<td>Communication and Report Writing</td>
</tr>
<tr>
<td></td>
<td>Mathematics 2E</td>
</tr>
<tr>
<td></td>
<td>Applied Electricity 2H</td>
</tr>
<tr>
<td></td>
<td>Electronics 2H (Power)</td>
</tr>
<tr>
<td></td>
<td>Electrical Drafting</td>
</tr>
<tr>
<td></td>
<td>Principles 1H</td>
</tr>
<tr>
<td></td>
<td>Tutorials or Projects</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage</td>
<td>Subject</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Electrical Machines 1H</td>
</tr>
<tr>
<td></td>
<td>Electrical Design 1H</td>
</tr>
<tr>
<td></td>
<td>Tutorials</td>
</tr>
<tr>
<td></td>
<td>2 electives</td>
</tr>
<tr>
<td>4</td>
<td>Electrical Design 2H</td>
</tr>
<tr>
<td></td>
<td>or Electronics 3H (Power)</td>
</tr>
<tr>
<td></td>
<td>Applied Electricity 4H</td>
</tr>
<tr>
<td></td>
<td>Tutorials</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
</tr>
<tr>
<td></td>
<td>Applied Heat 1H</td>
</tr>
<tr>
<td></td>
<td>Computer Studies 1H</td>
</tr>
<tr>
<td></td>
<td>Electrical Drafting Principles 2H</td>
</tr>
<tr>
<td></td>
<td>Properties of Materials 1H</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 1H</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 2H</td>
</tr>
<tr>
<td></td>
<td>Pulse and Digital Electronics</td>
</tr>
</tbody>
</table>

Note: The above course structure should be taken as a guide only. It can, within certain limits, be varied to meet the specific needs of the individual.

**CERTIFICATE OF TECHNOLOGY (Electronics)**

<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></td>
<td>full-time part-time</td>
</tr>
<tr>
<td>1</td>
<td>Circuit Theory 1H</td>
<td>LT11 LT18</td>
<td>7 3</td>
</tr>
<tr>
<td></td>
<td>Communication and Report Writing</td>
<td>XC18 XC18</td>
<td>2 2</td>
</tr>
<tr>
<td></td>
<td>Electronics 1H</td>
<td>LL11 LL18</td>
<td>3 1</td>
</tr>
<tr>
<td></td>
<td>Mathematics 1E</td>
<td>XT11 XT18</td>
<td>5 2</td>
</tr>
<tr>
<td></td>
<td>Physics 1H</td>
<td>XP11 XP18</td>
<td>5 2</td>
</tr>
<tr>
<td></td>
<td>Social Science 1H</td>
<td>XS11</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Wiring and Assembly Methods 1H</td>
<td>LW12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Tutorials</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Circuit Theory 2H</td>
<td>LT21 LT28</td>
<td>7 3</td>
</tr>
<tr>
<td></td>
<td>Electronics 2H</td>
<td>LL21 LL28</td>
<td>7 3</td>
</tr>
<tr>
<td></td>
<td>Mathematics 2E</td>
<td>XT21 XT28</td>
<td>5 2</td>
</tr>
<tr>
<td></td>
<td>Communication and Report Writing</td>
<td>XC18</td>
<td>2</td>
</tr>
<tr>
<td>Stage</td>
<td>Subject</td>
<td>Subject Code</td>
<td>Hours per week</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>full-time</td>
<td>part-time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>full-time</td>
<td>part-time</td>
</tr>
<tr>
<td>1.</td>
<td>Communication and Report Writing</td>
<td>XC18</td>
<td>2</td>
</tr>
<tr>
<td>1.</td>
<td>Applied Electricity 1H</td>
<td>XE18</td>
<td>3</td>
</tr>
<tr>
<td>1.</td>
<td>Physics 1H</td>
<td>XP18</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Materials and Processes 1H</td>
<td>XA28</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Mathematics 1H</td>
<td>XM11</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Applied Mechanics 1H</td>
<td>LH11</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Mechanical Drafting 1H</td>
<td>LA11</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: The above course structure should be taken as a guide only. It can, within certain limits, be varied to meet the specific needs of the individual.

**CERTIFICATE OF TECHNOLOGY (Mechanical)**

Course Code: HH

Stages 3 and 4 of this course are normally studied on a part-time basis. Students who studied Stages 1 and 2 part-time must choose four electives for study during Stages 3 and 4; students who studied Stages 1 and 2 full-time choose three electives.

<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.</td>
<td>Communication and Report Writing</td>
<td>XC18</td>
<td>2</td>
</tr>
<tr>
<td>1.</td>
<td>Applied Electricity 1H</td>
<td>XE18</td>
<td>3</td>
</tr>
<tr>
<td>1.</td>
<td>Physics 1H</td>
<td>XP18</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Materials and Processes 1H</td>
<td>XA28</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Mathematics 1H</td>
<td>XM11</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Applied Mechanics 1H</td>
<td>LH11</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Mechanical Drafting 1H</td>
<td>LA11</td>
<td>6</td>
</tr>
<tr>
<td>Stage</td>
<td>Subject</td>
<td>Subject Code</td>
<td>Hours per week</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>full-time</td>
<td>full-time</td>
</tr>
<tr>
<td>Social Science 1H</td>
<td>XS11</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>Machine Shop Practice</td>
<td>TX18</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>Applied Mechanics 2H</td>
<td>LH21</td>
<td>LH28</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics 2H</td>
<td>XM21</td>
<td>XM28</td>
<td>5</td>
</tr>
<tr>
<td>Mechanical Drafting</td>
<td>2AK</td>
<td>LB21</td>
<td>LB28</td>
</tr>
<tr>
<td>Social Science 2H</td>
<td>XS21</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>3. &amp; 4.</td>
<td>Applied Heat 1H</td>
<td>—</td>
<td>LG38</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 3H</td>
<td>—</td>
<td>LH38</td>
</tr>
</tbody>
</table>

Plus electives to be chosen from the following approved subjects — Stages 1 and 2 full-time students choose three; Stages 1 and 2 part-time students choose four.

- Applied Electricity 2H | — | XE28 | — | 3 |
- Mechanical Design 1H | — | LA38 | — | 3 |
- Applied Heat 2H | — | LG48 | — | 3 |
- Applied Fluid Power | — | LF48 | — | 3 |
- Refrigeration and Air Conditioning | — | LN48 | — | 2 |
- Supervision 1H | — | XD48 | — | 2 |

**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</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>full-time</td>
</tr>
<tr>
<td>1. &amp; 2.</td>
<td>Communication and Report Writing</td>
<td>XC18</td>
<td>XC18</td>
</tr>
<tr>
<td></td>
<td>Applied Electricity 1H</td>
<td>XE18</td>
<td>XE18</td>
</tr>
<tr>
<td></td>
<td>Physics 1H</td>
<td>XP18</td>
<td>XP18</td>
</tr>
<tr>
<td></td>
<td>Materials and Processes 1H</td>
<td>XA28</td>
<td>XA28</td>
</tr>
<tr>
<td></td>
<td>Mathematics 1H</td>
<td>XM11</td>
<td>XM18</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 1H</td>
<td>LH11</td>
<td>LH18</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drafting 1H</td>
<td>LA11</td>
<td>LA18</td>
</tr>
<tr>
<td></td>
<td>Social Science 1H</td>
<td>XS11</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Machine Shop Practice</td>
<td>TX18</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 2H</td>
<td>LH21</td>
<td>LH28</td>
</tr>
<tr>
<td></td>
<td>Mathematics 2H</td>
<td>XM21</td>
<td>XM28</td>
</tr>
<tr>
<td>Stage</td>
<td>Subject</td>
<td>Subject Code</td>
<td>Hours per week</td>
</tr>
<tr>
<td>-------</td>
<td>------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>full-time</td>
<td>part-time</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drafting</td>
<td>LA21</td>
<td>LA28</td>
</tr>
<tr>
<td></td>
<td>Social Science</td>
<td>XS21</td>
<td>—</td>
</tr>
<tr>
<td>3.</td>
<td>Applied Heat</td>
<td>—</td>
<td>LG38</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics</td>
<td>—</td>
<td>LH38</td>
</tr>
<tr>
<td></td>
<td>Mechanical Design</td>
<td>—</td>
<td>LA38</td>
</tr>
<tr>
<td></td>
<td>Applied Fluid Power</td>
<td>—</td>
<td>LF48</td>
</tr>
<tr>
<td>OR</td>
<td>alternatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Heat</td>
<td>—</td>
<td>LG48</td>
</tr>
<tr>
<td></td>
<td>Mechanical Design</td>
<td>—</td>
<td>LA48</td>
</tr>
</tbody>
</table>
Subject Synopses

APPLIED ELECTRICITY 1H XE11 (full-time) XE18 (part-time)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisite: 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 ELECTRICITY 2H XE21 (full-time) XE28 (part-time)
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 70% and internal tests 30%.
References: As for Applied Electricity 1H, plus;

APPLIED ELECTRICITY 4H XE41 (full-time) XE48 (part-time)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisite: Applied Electricity 3H, or Electrical Machines 1H.
Syllabus: Measuring instruments, complex waveform analysis, unbalance three phase systems, insulation, elements of a power system, transmission lines, system protection, circuit switching.
Assessment: Final three hour external examination 70% and internal tests 30%.
Reference: To be advised.
APPLIED FLUID POWER LF48
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 schematic 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:
Vickers Industrial Hydraulics Manual
A Course in Applied Pneumatics — Martonair.

APPLIED HEAT 1H LG31 (full-time) LG38 (part-time)

Prerequisite: Nil.


Assessment: Cumulative by assignment and practical work.

Prescribed text:

References:

APPLIED HEAT 2H LC48

Prerequisite: Applied Heat 1H.


Assessment: Cumulative by assignment and approved practical work.

Prescribed text:
EASTOP, T. D. & McCONKEY, A., Applied Thermodynamics for

Reference:

APPLIED MECHANICS 1H LH11 (full-time) LH18 (part-time)
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, shearforces, bending moment and thrust diagrams. Stresses, bending stresses in beams, strain, Young’s modulus, bulk modulus of rigidity, Poissons 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 LH21 (full-time) LH28 (part-time)
Prerequisites: Mechanics 1A and 1B.
Assessment: Cumulative by assignment and practical work.
Reference: As for Applied Mechanics 1H.

APPLIED MECHANICS 3H LH31 (full-time) LH38 (part-time)
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:

BEHAVIOURAL STUDIES XS02
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:

BITUMINOUS MATERIALS 1 CN11
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 CN21
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 CM12
A course of lectures involving two hours per week for one semester.
Prerequisite: Computations.
Syllabus: Basic arithmetic, dimensional change including shrinkage and loss on ignition. Density and S.G. porous, solids, suspensions, including Brongniart’s formula.
Assessment: Cumulatively by written tests.
Reference:

CERAMIC CALCULATIONS 2A CM22
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 CM23
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 CASTING & GLAZING TECHNIQUES CX13
Three hours practical work per week for two semesters.
Syllabus: Students are required to work on all aspects of slipcasting and glazing ceramic products.
Reference:
LAWRENCE, W. G., Ceramic Science for the Potter.

CERAMIC SCIENCE 1 CS11
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.
Reference:
CHERIM, S. M., Chemistry for Laboratory Technicians, Saunders, 1971.

CERAMIC SCIENCE 2 CS21
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.
Assessment: Written tests and assignments.
References:
MARTIN, S. L., & CONNOR, A. K., Basic Physics, Vols 1, 2, 3, Whitcombe & Tombs.

CERAMIC SCIENCE 3A CS31
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 CS32
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.
*References:* As for Ceramic Science 3A.

CERAMIC TECHNOLOGY 1 CT11
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 CT21
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 CX22
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 CX32
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.
Assessment: Satisfactory completion of practical work in conjunction with written assignments.
References: Laboratory notes. Australian Standards as advised.

CIRCUIT THEORY 1H LT11 (full-time) LT18 (part-time)
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 three hour external examination 70% and internal tests 30%.
References: To be advised.

CIRCUIT THEORY 2H LT21 (full-time) LT28 (part-time)
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 1E. 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% and internal tests 30%.
References: To be advised.

CIRCUIT THEORY 3H LT31 (full-time) LT38 (part-time)
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% and internal tests 30%.
Reference: To be advised.

**COMMUNICATION AND REPORT WRITING XC18 or CC11 and CC12**

*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:*
HALLIDAY, W. A., *Taking Notes, Summarising and Precis Writing.*

**COMMUNICATION MEASUREMENTS 1H LM41 (full-time) LM48 (part-time)**

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% and internal tests 50%.

*Reference:* To be advised.

**COMMUNICATION SYSTEMS 1H XY41 (full-time) XY48 (part-time)**

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

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

*Syllabus:* Tuned amplifiers, oscillator types, transmitter design, AM generation, FM, PM comparison. Fundamentals of AM broadcasting, communication receiver design, TV systems, TV transmission and receiving.

*Assessment:* By final examination and projects.

*Reference:* To be advised.

**COMMUNICATION TECHNIQUES 1H LX41 (full-time) LX48 (part-time)**

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, Mathematics 3E.
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% and internal tests 30%.

COMPUTATIONS CM11
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.

COMPUTER STUDIES 1H XG11 (full-time) XG18 (part-time)
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 1H, or higher.
Syllabus: Computer mathematics, computer description — hardware, software, languages (machine, assembler, computer), BASIC language programming.
Assessment: Assessments and one examination.

COMPUTER TECHNIQUES 1H LK41 (full-time) LK48 (part-time)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Mathematics 2E, Pulse and Digital Electronics 1H.
Syllabus: Definition of terms, computer organisation, memory tapes and organisations, MPU, addressing modes, instruction set, condition code register, programming techniques, minimal system, interrupts stack, subroutines, PIA and use of PIA, ACIA, timing, DMA, programming and diagnostic.
Assessment: Final three hour external examination 70% and internal tests 30%.
References:

CONCRETE TECHNOLOGY 1 CF21
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, reading 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:
C. & C. A. A. — Design Control and Characteristics of Concrete.

CONCRETE TECHNOLOGY 2A CF31
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 CF32
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 XQ31
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.

CONSTRUCTION SURVEYING CS12
A course of two hours per week for one semester.
Prerequisite: Computations CM11.
Syllabus: Introduction and definitions, errors, location surveying, levelling, contours, setting out.
Assessment: Written tests and practical field exercises.
Reference: BANNISTER and RAYMOND, Surveying.

DIGITAL AND LOGIC CONTROL 1H
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisite: Pulse and Digital Electronics 1H.
Syllabus: Number system, codes, Boolean algebra applications, other logic combination techniques, logic families, flip flops and sequential circuit analysis and design; asynchronous, sequential circuits, counters, digital servicing techniques, memories and system interfacing.
Assessment: Final three hour external examination 70% and internal tests 30%.
Reference: To be advised.

DRAFTING TECHNOLOGY 1 CD11
A course of two hours per week for one semester.
Prerequisites: Nil.
Syllabus: Basic drafting practice, cartographic interpretation.
Assessment: Satisfactory completion of assignments.
References: A.S. 1100 Parts 2-10, Drawing Practice.

DRAFTING TECHNOLOGY 2 CD21
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.

ELECTRICAL DESIGN 1H LD11 (full-time) LD18 (part-time)
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 Applied Electricity 3H.
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 LD21 (full-time) LD28 (part-time)**

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

**Prerequisites:** Electrical Design 1H, Applied Electricity 3H.

**Syllabus:** Elements of electrical design, thermal conduction, insulation, magnetic circuits, elements of circuitry and systems, static switching, control circuitries, plant and ancillary services, enclosure and panel design.

**Assessment:** Final three hour external examination 70% and internal tests 30%.

**Reference:** To be advised.

**ELECTRICAL DRAFTING PRINCIPLES 1H LE12 (full-time) LE19 (part-time)**

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 wiring diagram, schematics, printed circuit production.

**Assessment:** Projects.

**Reference:** To be advised.

**ELECTRICAL DRAFTING PRINCIPLES 2H LE21 (full-time) LE28 (part-time)**

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

**Prerequisite:** Electrical Drafting Principles 1H. This subject must be studied concurrently with Applied Electricity 2H.

**Syllabus:** Electrical standards and codes, electrical layouts, wiring diagrams, single line diagrams, switchboard and control panel arrangements, total electrical installation diagrams and arrangements.

**Assessment:** Three hours examination and projects.

**References:**

**Relevant Standards and Codes.**

**ELECTRICAL MACHINES 1H XE31 (full-time) XE38 (part-time)**

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% and internal tests 30%.

References:

**ELECTRICAL MEASUREMENTS XZ41 (full-time) XZ48 (part-time)**

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: Standards, errors, analogue and digital meter types, resistance measurement, voltage and current measurement by comparison, bridge measurements, interference and screening, inductive and capacitive measurements, the oscilloscope, magnetic measurements, power circuit measurements, instrument transformers, oscillographs, instrument selection and specification.

Assessment: Two unit examinations, plus projects.

References: To be advised.

**ELECTRONIC DESIGN DRAFTING 2H LJ41 (full-time) LJ48 (part-time)**

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

Prerequisites: Electronics 3H, Circuit Theory 3H, Electronic Drafting Principles 1H.

Syllabus: Block diagrams, flow paths, equipment design, mechanical and electronic wiring diagrams, further printed circuits.

Assessment: Three hours examination and projects.

Reference: To be advised.

**ELECTRONIC DRAFTING PRINCIPLES 1H LE11 (full-time) LE18 (part-time)**

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: Australian Standards for electronic symbols, waveforms, layouts, component designation, component locating and grid parts listing, printed circuits — conductors and terminations, circuit design.

Assessment: Projects.

Reference: Relevant Standards.
ELECTRONICS 1H LL11 (full-time) LL18 (part-time)
A course of lectures for five hours per week for one semester, or two hours per week for one year.
Syllabus: General examination of laboratory equipment, passive and active devices, circuit rectification, amplification and oscillation, electronic systems (television, radar, computers, etc.).
Assessment: Examination and projects.
Reference: To be advised.

ELECTRONICS 2H LL21 (full-time) LL28 (part-time)
A course of seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Circuit Theory 1H, Electronics 1H, Mathematics 1E.
Syllabus: The fundamentals of semiconductors, logic circuits, clipping and clamping, rectification, breakdown diodes, FET's, common source/drain amplifiers, biasing techniques, the fundamentals of transistors, CE and CB and CC amplifiers, Darlington pairs.
Assessment: Final three hour external examination 70% and internal tests 30%.
Reference: To be advised.

ELECTRONICS 3H LL31 (full-time) LL38 (part-time)
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% and internal tests 30%.
Reference: To be advised.

ELECTRONICS 2H (Power) XF21 (full-time) XF28 (part-time)
A course of lectures for six 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 and Applied Electricity 2H.
Syllabus: Fundamentals of semiconductors and logic circuits, clipping and clamping, rectification, breakdown devices, operational amplifier FET's bipolar transistors, thyristors.
Assessment: Final three hour external examination 70% and internal tests 30%.
Reference: To be advised.
**ELECTRONICS 3H (Power) XF31 (full-time) XF38 (part-time)**

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

*Prerequisite:* Electronics 2H (Power)

*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% and internal tests 30%.

*Reference:* To be advised.

---

**FIELD TESTING AND MONITORING CS33**

A course of two hours per week for one semester.

*Prerequisite:* Instrumentation CX25 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:*  

---

**FORENSIC SCIENCE XK21**

A course of two hours per week for two semesters.

*Prerequisites:* 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.

---

**GEOLOGY CL21 (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:**

**GLASS TECHNOLOGY 1 CG21**
A course of two hours per week for one semester.

*Prerequisite:* Ceramic Science I.

*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 CG31**
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 CX25**
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 CD31**
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:*
Laboratory Techniques CX11
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.

Machine Shop Practice TX18
Three hours per week for two semesters.

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.

Materials and Processes 1H XA21, XA28
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:

References:

Materials Science 1 CS13
A course of one hour per week for two semesters or two hours per week for one semester.

Prerequisites: 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:

**MATERIALS SCIENCE 2 CS23**

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 TESTING TECHNIQUES 1 CX14**

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 CX24**

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.

**MATERIALS TECHNOLOGY CH21**

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:
MATHMATICS 1H XM11, XM18
A course of five hours per week for one semester.
Syllabus: The number system, solution to simple linear equations, logarithms, basic trigonometric functions, introduction to differentiations, binomial approximations, introductions to Boolean algebra, determinants, complex numbers.

MATHMATICS 2H XM21, XM28
A course of five hours per week for one semester.
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.

MATHMATICS 1E XT11 (full-time) XT18 (part-time)
A course of lectures for five hours per week for one semester, or two hours per week for one year.
Prerequisite: Form 5 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.

MATHMATICS 2E XT21 (full-time) XT28 (part-time)
A course of lectures for five 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.
Reference: To be advised.

MATHMATICS 3E XT31 (full-time) XT38 (part-time)
A course of lectures for five hours per week for one semester, or two hours per week for one year.
Prerequisite: Mathematics 2E.
Syllabus: Switching logic; Boolean functions, min. and max. term, Karnough mapping, incompletely specified function, prime implications; partial differentiation, small variation, maximum and minimum;
integration, special functions, special integration methods; series, common series progression, infinite series, convergence and divergence; Fourier series, Fourier theory, odd and even functions, harmonics, applications; differential equations, linear DEs 1st and 2nd orders, various methods solving DEs; Gamma and Bessel function; Bessel DEs of 1st and 2nd kind application for freq. modulation theory; laplace transform; topography and graph theory; matrix; network manipulations; inverses; partitioning and diagnosing applications; complex variable.

Assessment: Unit exams and projects.

References:

MECHANICAL DESIGN 1H LA38

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 DESIGN 2H LA48

A subject of four hours class duration per week for one year plus projects in own time.

Prerequisites: Mechanical Design 1H, Materials and Processes 1H, Applied Mechanics 3H.

Syllabus: Design according to Australian Standard Codes — gears, structures (as applied to machines) and shafts. Design and select appropriate power screws, brakes, clutches, chains, belts, plain and roller bearings, springs.
Assessment: Two four-hour external examinations plus two compulsory assessed projects.

References:
AS1250, 1975; BS436.

MECHANICAL DRAFTING 1H LA11, LA18

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.

Prescribed texts:

MECHANICAL DRAFTING 2H LA21, LA28

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 externally set and marked.

MECHANICAL DRAFTING 2AK LB21, LB28

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:
MOULDMAKING 1 CX12
A subject occupying four hours per week for two semesters.
Syllabus: The theory and practice of plaster technology, modelling techniques, functional ceramic ware design and making plaster moulds to suit all production processes in the ceramic industry.
Assessment: By projects.

MOULDMAKING 2 CX19
A subject occupying four hours per week for one semester.
Prerequisite: Mouldmaking 1 CX12.
Syllabus: A more advanced stage of CX12.

MOULDMAKING (CERAMICS) CX34
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.

PHYSICS 1H XP11 (full-time) XP18 (part-time)
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:

**PLASTICS TECHNOLOGY 1 CT13**
A course of two hours per week for one semester.
*Prerequisites:* Materials Science 1 or Ceramic Science 1.
*Syllabus:* Plastic distinguishing features, major elements, macro-molecular, thermo-plastics, thermo-setting, additives, cross linking by catalysts, epoxies, urethanes, polyesters.
*Assessment:* Tests and assignment work.
*References:*

**PLASTICS TECHNOLOGY 2 CT23**
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 OPERATIONS CQ11**
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:*

**PRINCIPLES OF PLANT OPERATION (Materials) CT14**
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:*
PEMBERTON, A. W., *Plant Layout and Materials Handling*.
PROPERTIES OF MATERIALS 1H XL21 (full-time)
XL28 (part-time)
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 & DIGITAL ELECTRONICS 1H LL32 (full-time)
LL39 (part-time)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisites: Circuit Theory 2H, Mathematics 2E, Electronics 2H.

Syllabus: Linear waveshaping, compensated voltage devices, clipping and clamping, active switches and propagation times, high speed switching circuits, pulse devices. MOS devices, discrete and IC multivibrators, logic and logic families, flip flop MSI devices, displays.

Assessment: By examination and projects.

References: To be advised.

QUALITY CONTROL CQ31
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 & INSULATOR TECHNOLOGY CT24
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:
REFRIGERATION AND AIR CONDITIONING LN42, LN48

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 distribution including assignment and practical work.  

RUBBER TECHNOLOGY CT22

This course will be offered if there is sufficient demand for it. Students interested should inquire at the Department of Applied Science — Middle Level.

SOCIAL SCIENCE 1H XS11

A course of three hours class work per week for one semester.  
**Prerequisites:** Nil.  
**Syllabus:** Case study requirements, team and structure building, group dynamics, personality types, learning theory, norms and controls. Needs and their satisfaction, frustration, authority and the individual.  
**Assessment:** Assessment of work will be on a cumulative basis and will include a case study, group and individual assignments, class participation.  

SOCIAL SCIENCE 2H XS21

A course of three hours class work per week for one semester.  
**Prerequisite:** Social Science 1H.  
**Syllabus:** The work environment in relation to needs. Change in individual and work environment. Organisation theory, structure, needs, coping with change.  
**Assessment:** Assessment of work will be on a cumulative basis and will include a major case study, group and individual assignments, class participation.  
**Prescribed text:** As for Social Science 1H.

SOCIAL SCIENCE 3H XS31

Identical with Supervision 1A and B.
SOIL AND ROCK TECHNOLOGY 1 CT15
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:**
AS 1726, *Site Investigation,* Standards Association of Australia, Melbourne.

SOIL AND ROCK TECHNOLOGY 2A CT25 and 2B CT26
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:**
INGLES and METCALFE, *Soils Stabilization.*

STATISTICS CM21
A course of two hours per week for one semester.
**Prerequisite:** Computations or its equivalent.
**Syllabus:** Presentation of statistical data, frequency distributions and their properties, sample theory, testing hypotheses.
**Assessment:** Written tests.
**Reference:**

SUPERVISION 1A XV41
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:**
HAY, W. W. & BITTEL, L. R., *Supervision: a complete Australian course.*
SUPERVISION 1B XV42
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.

SUPERVISION 1H XD41, XD48
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:

WIRING & ASSEMBLY METHODS 1H LW12 (full-time)
LW 19 (part-time)
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.

WORK PROJECT CX33
To be arranged with the lecturer.
TRADE APPRENTICESHIP AND TECHNICIAN COURSES
<table>
<thead>
<tr>
<th>TRADE APPRENTICESHIP COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boilermaking and Steel Construction</td>
</tr>
<tr>
<td>Carpentry and Joinery</td>
</tr>
<tr>
<td>Fitting and Machining</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TECHNICIAN COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building (Building Foreman)</td>
</tr>
<tr>
<td>Building (Building Inspector)</td>
</tr>
<tr>
<td>Municipal Building Inspector</td>
</tr>
<tr>
<td>Mechanical (Mechanical Drafting &amp; Thermal Plant)</td>
</tr>
<tr>
<td>Production</td>
</tr>
<tr>
<td>Subject Synopses</td>
</tr>
</tbody>
</table>
Trade Apprenticeship Courses

Standard of Admission
Although the minimum educational qualification for most apprenticeship trades is the satisfactory completion of Form 3, many employers require a higher standard.

Credits
The maximum term of apprenticeship is now four years in most trades within the jurisdiction of the Industrial Training Commission. In some trades, provision has been made to allow credits in the term of apprenticeship to persons entering the trades after completion of Form 5. In certain other trades credits are not allowed, but apprentices may attempt module tests without necessarily completing the module course of study.

An apprentice who has successfully completed Form 4 or better may be permitted to commence a technician’s course.

Fees
An apprentice will not be permitted to attend classes until his enrolment form has been completed and his fees paid. This must be done on the first day of attendance.

Apprentice Reports
Reports on an apprentice in regard to his or her attendance, conduct and standard attained at the examinations are forwarded from the Institute on behalf of the Industrial Training Commission, to the employer and the apprentice at the end of the year.

BOILERMAKING & STEEL CONSTRUCTION

Course Code: AM

The first year of this course is proposed for 1980. This will comprise modules 1 to 8 inclusive. Additional welding subjects can be taken by these apprentices on a part-time evening basis.

The second year of this course comprises welding modules 9-16 inclusive. Apprentices attend one full day of eight hours per week for their second year. Additional welding subjects can be taken by apprentices on a part-time evening basis.

Module No. & Code — Subjects

Second year

Welding Module 9 WM09
gases for welding, operational hazards and safety devices, oxy-acetylene welding flames, welding techniques, defects, fusion welding.

Welding Module 10 WM10
filler rods and fluxes, fusion welding, bronze and braze welding, flame cutting and allied processes.
Welding Module 11 WM11
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 WM12
plate edge preparation and allied processes for electric arc welding, weld costing, electric arc welding techniques and safety.

Welding Module 13 WM13
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 WM14
arc welding processes, (submerged arc welding, inert gas welding, metallic inert gas welding), resistance welding processes, electric arc welding techniques.

Welding Module 15 WM15
related drawing, reading blue-prints, material list, other basic drawing related to the trade.

Welding Module 16 WM16
related blue-print reading, material list, detail drawing, technical sketching, other basic drawing related to the trade.

CARPENTRY AND JOINERY Course Code: AC
Under the Modular Training Scheme, apprentices are required to attend school for one day (8 hours) per week 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.

Basic modules
First year

Building Module 1 BM01
simple basic structures, basic tool skills.

Building Module 2 BM02
simple timber wall framing.

Building Module 3 BM03
simple timber roofing — skillion and gable.

Building Module 4 BM04
simple doors — ledged and braced — flywire.
Building Module 5 BM05
simple window — casement frame and sash.

Building Module 6 BM06
timber fencing and gates.

Building Module 7 BM07
timber villa construction — sub-floor structure to include set out of wall plates.

Building Module 8 BM08
timber villa construction — wall framing.

Second year

Building Module 9 BM09
timber villa construction — ceiling and gable roof framing.

Building Module 10 BM10
timber villa construction — simple hip roofing.

Building Module 11 BM11
doors and door frames (domestic).

Building Module 12 BM12
window joinery — double hung sashes with patented balances — rectangular louvre.

Building Module 13 BM13
window joinery — double hung sashes in box frames.

Building Module 14 BM14
simple stairs — timber and concrete construction.

Building Module 15 BM15
(a) brick veneer construction.
(b) hand saw sharpening.

Building Module 16 BM16
hip and valley roofing.

Alternative modules:

BM17-BM30

Third year
A final eight modules must be completed in addition to the 16 basic modules for trade schooling to be completed as required by the Industrial Training Commission.
A selection of 32 additional modules is available. On completion of the basic modules, selection of the final eight modules will be made to suit the student.
FITTING & MACHINING

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 Form 4 or Form 5 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 hours duration, based on modules 1-19. Students who are unable to gain 35% of the allotted 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 No. and Code — Details

Core Modules
First year

Module 1 TM01
Safety principles, marking out, handtools, filing, measuring and testing tools, lathe preparation, lathe operations.

Module 2 TM02

Module 3 TM03
Filing, chisels and chipping, drills and drilling, turning operations, equipment used to hold and set plain work on machines.

Module 4 TM04
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 TM05
Filing, drills and drilling, machine cutting tools, lathe operations, shaping machine.

Module 6 TM06
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 TM07
Filing, drilling, grinding practice, screw cutting in lathe, planing and slotting machines.

Module 8 TM08
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 TM09
Lathe operations, cemented carbide cutting tools, economical use of machine tools, indicators.

Module 10 TM10
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 detail drawings. Bearing metals, copper and nickel alloys, joining of metals.

Module 11 TM11
Screw cutting, form turning, turret and capstan lathes.

Module 12 TM12

Module 13 TM13
Fitting, checking a lathe for accuracy, scrapers and scraping, lubricants, bearings and clutches, clearance for shafts and bearings.

Module 14 TM14
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 TM15
Milling machine.

Module 16 TM16
Third year

Module 17 TM17
Multi-start threads, calculation of lead angles involving large leads and multi-start threads, revision of Trigonometrical functions, gear ratios.

Module 18 TM18
Operational planning and production tooling.

Module 19 TM19
Cylindrical grinding, surface grinding.

Module 20 TM20
Craft examination.

Plus four alternative modules selected from the following groupings:

Boring & Turning Module D21 TM21
Horizontal boring machine: types, features of construction, types of work, accessory equipment — practical skills.

Boring & Turning Module D22 TM22
Horizontal boring machine — practical skills — vertical boring machine.

Boring & Turning Module D23 TM23
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 TM27
Tooth forms of milling cutters: plain form, straddle, gang and face milling.

Milling Module E52 TM28
Milling machine attachments, universal head, slotting attachment, circular attachment, high speed head.

Milling Module E53 TM29
Simple, direct, angular and linear indexing — rack cutting attachment.

Milling Module E54 TM30
Helical milling: principle, calculations, setting up, speeds and feeds, depth and length of cut — milling side and end flutes.

Grinding Module G51 TM31
Precision measurement: standards of accuracy, sources of error, direct versus comparative measurement, gauging, measuring instruments, measuring with precision equipment.
Grinding Module G52 TM32
Precision grinding: abrasive wheels, universal grinding machines, practical grinding exercises, diamond wheels, grinding tungsten carbide.

Grinding Module G53 TM33
Tool and cutter grinding: machine types, uses of machine, grinding wheel selection, dressing grinding wheels, diamond wheels.

Grinding Module G54 TM34
Principles of centreless grinding: operating factors, attachments and accessories, special fixture, lapping, honing, superfinishing.

Tool & Gaugemaking Module H51 TM35
Precision measurement: standards of accuracy, direct and comparative measurement, gauging and measuring with precision equipment.

Tool & Gaugemaking Module H52 TM36
Helical milling.

Tool & Gaugemaking Module H53 TM37
Tool and cutter grinding.

Tool & Gaugemaking Module H54 TM38
Introduction to toolmaking: press toolmaking, diemaking for plastics and diecasting, tool and gaugemaking.

Diemaking Module J51 TM39
Precision measurement: standards of accuracy, sources of error, direct versus comparative measurement, gauging, measuring instruments, measuring with precision equipment.

Diemaking Module J52 TM40
Helical milling: principle, calculations, setting up, speeds and feeds, depth and length of cut, milling side or end flutes.

Diemaking Module J53 TM41
Tool and cutter grinding: machine types, uses of machine, grinding wheel selection, dressing grinding wheels, diamond wheels.

Diemaking Module J54 TM42
Introduction to toolmaking: press toolmaking, diemaking for plastics and diecasting, tool and gaugemaking.

Metrology Module L51 TM43
Standards, engineering units of length, common measuring equipment, surface texture.
Metrology Module L52 TM44
Errors in metrology and inspection, measurement of squareness, measurement of angles.

Metrology Module L53 TM45
Extension of errors in measurement, mechanical comparators, precision levels, collimators, measurement of straightness and flatness, measurement of angles.

Metrology Module L54 TM46
Optics, surface texture, screw thread measurement, instrument construction, comparators.

Welding Module B51 TM47
Oxy-acetylene process.

Welding Module B52 TM48
Oxy-acetylene welding: preweld preparation, welding techniques, hard-surfacing.

Welding Module B55 TM49
Electric arc welding process.

Welding Module B56 TM50
Electric arc welding: power sources AC/DC, electrodes, fillet welds in flat and vertical positions, arc gouging and grooving.

Industrial Hydraulics A51 TM51
Basic principles, simple hydraulic systems, pumps.

Industrial Hydraulics A52 TM52
Directional flow control valves, actuators, pressure control, filters and strainers, seals and packing, pipeline hoses and fittings, systems and troubleshooting, speed control.

Industrial Pneumatics A53 TM53
Gas laws, basic principles, basic systems, actuators, directional control valves, air service units and speed control.

Industrial Pneumatics A54 TM54
Compressors, miscellaneous components, airline and fittings, moisture, typical circuits, seals and packing, air motors, maintenance, standards, air gauge units, air lubrication of bearings.
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 Form 4 subjects: English, mathematics, science; or approved equivalent qualifications, provided that any person who is otherwise eligible may be admitted to a course if considered 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.

(Sample Course)

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL58</td>
<td>Building Administration and Supervision</td>
<td>2</td>
</tr>
<tr>
<td>BP22</td>
<td>Building Construction 1A</td>
<td>2</td>
</tr>
<tr>
<td>BP23</td>
<td>Building Construction 1B</td>
<td>2</td>
</tr>
<tr>
<td>BP32</td>
<td>Building Construction 2A</td>
<td>2</td>
</tr>
<tr>
<td>BP33</td>
<td>Building Construction 2B</td>
<td>2</td>
</tr>
<tr>
<td>BC14</td>
<td>Building Maths (T)</td>
<td>2</td>
</tr>
<tr>
<td>BS21</td>
<td>Building Science (T)</td>
<td>2</td>
</tr>
<tr>
<td>BY41</td>
<td>Building Surveying (T)</td>
<td>2</td>
</tr>
<tr>
<td>BE11</td>
<td>English (Form 5)</td>
<td>2</td>
</tr>
<tr>
<td>BY51</td>
<td>Builders Quantities or other approved elective</td>
<td>2</td>
</tr>
<tr>
<td>XC11</td>
<td>Communication and Report Writing</td>
<td>2</td>
</tr>
</tbody>
</table>

BUILDING (Building Inspector)  Course Code: TE

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

Entrance Standard
Completion of Form 4 standard of education, and engagement in an appropriate vocational program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL58</td>
<td>Building Administration and Supervision</td>
<td>2</td>
</tr>
<tr>
<td>BP22</td>
<td>Building Construction 1A</td>
<td>2</td>
</tr>
<tr>
<td>BP23</td>
<td>Building Construction 1B</td>
<td>2</td>
</tr>
<tr>
<td>BP32</td>
<td>Building Construction 2A</td>
<td>2</td>
</tr>
<tr>
<td>Code</td>
<td>Subject</td>
<td>Hours/wk</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>BP33</td>
<td>Building Construction 2B</td>
<td>2</td>
</tr>
<tr>
<td>BP42</td>
<td>Building Construction 3A</td>
<td>2</td>
</tr>
<tr>
<td>BP43</td>
<td>Building Construction 3B</td>
<td>2</td>
</tr>
<tr>
<td>BC14</td>
<td>Building Maths (T)</td>
<td>2</td>
</tr>
<tr>
<td>BL48</td>
<td>Practical Inspection (Building)</td>
<td>2</td>
</tr>
<tr>
<td>BL39</td>
<td>Scaffolding Inspection 1A</td>
<td>1</td>
</tr>
<tr>
<td>BL49</td>
<td>Scaffolding Inspection 1B</td>
<td>1</td>
</tr>
<tr>
<td>BL37</td>
<td>Specifications 1A and 1B</td>
<td>1</td>
</tr>
<tr>
<td>BL57</td>
<td>Statutory Control of Buildings</td>
<td>2</td>
</tr>
<tr>
<td>BR41</td>
<td>Technical Reports (Building)</td>
<td>2</td>
</tr>
</tbody>
</table>

**MUNICIPAL BUILDING INSPECTOR**  
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.

**Entrance Standard**

A standard of general education equivalent to passes in six subjects (including English, mathematics and science) prescribed for Form 4.

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL58</td>
<td>Building Administration and Supervision</td>
<td>2</td>
</tr>
<tr>
<td>BP22</td>
<td>Building Construction 1A</td>
<td>2</td>
</tr>
<tr>
<td>BP23</td>
<td>Building Construction 1B</td>
<td>2</td>
</tr>
<tr>
<td>BP32</td>
<td>Building Construction 2A</td>
<td>2</td>
</tr>
<tr>
<td>BP33</td>
<td>Building Construction 2B</td>
<td>2</td>
</tr>
<tr>
<td>BL48</td>
<td>Practical Inspection (Building)</td>
<td>2</td>
</tr>
<tr>
<td>BL39</td>
<td>Scaffolding Inspection 1A</td>
<td>1</td>
</tr>
<tr>
<td>BL49</td>
<td>Scaffolding Inspection 1B</td>
<td>1</td>
</tr>
<tr>
<td>BL57</td>
<td>Statutory Control of Buildings</td>
<td>2</td>
</tr>
</tbody>
</table>

**MECHANICAL (Mechanical Drafting and Thermal Plant)**  
Course Code: TM

**Entrance Standard**

Passes in English, mathematics, science and technical drawing at Form 4 level.

**Exemptions**

Passes in English, mathematics, physics and leaving technical drawing at Form 5 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 TM01-TM20 (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>TE11</td>
<td>English 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TC11</td>
<td>Mathematics 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TS11</td>
<td>Science 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD11</td>
<td>Engineering Drawing 1T</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM01-TM08 (of the Fitting and Machining Apprenticeship Course).</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>TE21</td>
<td>English 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TS21</td>
<td>Science 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TC21</td>
<td>Mathematics 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD21</td>
<td>Engineering Drawing 2T</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM09-TM16.</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>TK31</td>
<td>Mechanics 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TH31</td>
<td>Applied Heat 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD31</td>
<td>Mechanical Drafting 1M</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TL31</td>
<td>Metallurgy 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM17-TM20.</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>TK41</td>
<td>Mechanics 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TG41</td>
<td>Engineering Practices</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TD41</td>
<td>Mechanical Drafting 2M</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TH41</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 Form 4 level.

**Exemptions**

Passes in English, mathematics, physics and leaving technical drawing at Form 5 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 TM01-TM20 (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>3rd</td>
<td>TG31</td>
<td>Engineering Inspection 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TJ31</td>
<td>Jig and Tool Drafting 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TY31</td>
<td>Metrology 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TL31</td>
<td>Metallurgy 1T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students must enrol for Modules TM17-TM20.</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>TJ41</td>
<td>Jig and Tool Drafting 2T</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>TY41</td>
<td>Metrology 2T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TT11</td>
<td>Toolmaking Practice 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TT21</td>
<td>Toolmaking Theory 1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TX41</td>
<td>Production Processes and Development 1T</td>
<td>2</td>
</tr>
</tbody>
</table>
Subject Synopses

APPLIED HEAT 1T TH31
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 TH41
Extension of Applied Heat 1T. Steady flow energy equation, power cycles, boiler plant, condensers, turbines, refrigeration, combustion, heat transfer.

BUILDERS QUANTITIES BY51
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 BL58
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%. Class assignments 40%.
References: To be announced.

BUILDING CONSTRUCTION 1A BP22
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 BP23
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 BP32**
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 BP33**
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 to given problems.
Assessment: Assessment of drawings.
References: To be announced.

**BUILDING CONSTRUCTION 3A BP42**
A course of two hours per week for one year.
Prerequisites: Building Construction 2A.
Assessment: Final three hour examination.
References: To be announced.

**BUILDING CONSTRUCTION 3B BP43**
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 MATHS (T) BC14**
A course of two hours per week for one year.
Prerequisite: Form 4 Mathematics.

Assessment: Final three hour examination.

References: To be announced.

BUILDING SCIENCE (T) BS21
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%, laboratory work 40%.

References: To be announced.

BUILDING SURVEYING (T) BY41
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%, field work 40%.

References: To be announced.

COMMUNICATION AND REPORT WRITING XC11

Prerequisites: Nil.

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

ENGINEERING DRAWING 1TTD11

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 TD21
Projection and arrangement of detail and assembly drawings of a mechanical nature, methods of fastening, transmission and dimensioning.

ENGINEERING INSPECTION 1T TG31

ENGINEERING PRACTICES TG41

ENGLISH 1T TE11
Development of ability to read with comprehension and appreciation. Practice in oral and written English. Preparation of clear, concise notes and summaries.

ENGLISH 2T TE21

JIG AND TOOL DRAFTING 1T TJ31
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 TJ41

MATHEMATICS 1T TC11

MATHEMATICS 2T TC21
MECHANICAL DRAFTING 1M TD31
Geometrical constructions, forming and fabrication, power transmission, emphasis on standard drafting practices.

MECHANICAL DRAFTING 2M TD41
Further work on geometrical constructions, power transmissions and mechanism details with related design theory.

MECHANICS 1T TK31
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 TK41
Statics, kinematics, dynamics, stress and strain, shells and joints, beams, torsion, hydrostatics and fluids in motion. Laboratory work.

METALLURGY 1T TL21

METROLOGY 1T TY31

METROLOGY 2T TY41

PRACTICAL INSPECTION (BUILDING) BL48
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.

PRODUCTION PROCESSES AND DEVELOPMENT 1T TX41
Metal cutting characteristics of machined surfaces, automatic lathes, milling, abrasive processes, profiling, forming processes.
SCAFFOLDING INSPECTION 1A & 1B BL39, BL49
A course of two hours per week for one year.
Prerequisite: Form 4 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.

SCIENCE 1T TS11

SCIENCE 2T TS21

STATUTORY CONTROL (BUILDING) BL57
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: Final three hour exam.
Reference: To be announced.

TECHNICAL REPORTS (BUILDING) BR41
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 external examination.
References: To be announced.
TOOLMAKING PRACTICE 1 TT11
TOOLMAKING THEORY 1 TT21
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 2 TT22 (Press Tools)
TOOLMAKING THEORY 2 TT23
ACCREDITED VOCATIONAL COURSES
ACCREDITED VOCATIONAL COURSES:

Building Construction ................................................................. 87
Business Studies (Office Training) .................................................. 87
    Subject Synopses ................................................................. 88
Ceramic Casting and Glazing Techniques ....................................... 90
Ceramic Mouldmaking .................................................................. 90
Certificate in EDP (Operating & Coding) ....................................... 90
    Subject Synopses ................................................................. 91
Certificate of Police Studies ......................................................... 93
Elementary Fitting and Machining ............................................... 93
Toolmaking .................................................................................. 94
    Subject Synopses ................................................................. 94
Crane Operators .......................................................................... 94
Rigger .......................................................................................... 95
Scaffolding .................................................................................... 95
Welding Courses .......................................................................... 95
    Subject Synopses ................................................................. 95
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 of study, for one year.

For details of the syllabus covered by this course, see the subject synopses in the Technician Courses section of this Handbook.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Construction 1A</td>
<td>BP22</td>
</tr>
<tr>
<td>Building Construction 1B</td>
<td>BP23</td>
</tr>
<tr>
<td>Building Construction 2A</td>
<td>BP32</td>
</tr>
<tr>
<td>Building Construction 2B</td>
<td>BP33</td>
</tr>
<tr>
<td>Building Construction 3A</td>
<td>BP42</td>
</tr>
<tr>
<td>Building Construction 3B</td>
<td>BP43</td>
</tr>
</tbody>
</table>

BUSINESS STUDIES — OFFICE TRAINING

Course Code: EBO

This is a one-year, full-time course that provides practical training in office skills, either as a shorthand typist, or as 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, plus three other subjects at Form 5 level, or a minimum of one year out of school.

Award

Students who complete the course successfully are awarded a certificate.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorthand YD01</td>
<td>8</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Bookkeeping YD03</td>
<td>6</td>
</tr>
<tr>
<td>Typing YD07</td>
<td>6-8</td>
</tr>
<tr>
<td>Office Practice YD08</td>
<td>2</td>
</tr>
<tr>
<td>Business Practice YD04</td>
<td>3</td>
</tr>
<tr>
<td>Human Relations YD05</td>
<td>2</td>
</tr>
<tr>
<td>Consumer Sociology YD09</td>
<td>2</td>
</tr>
</tbody>
</table>
BOOKKEEPING YD03
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 ENGLISH YD04
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.

CONSUMER SOCIOLOGY YD09
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 relationship to the law.

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

HUMAN RELATIONS YD05
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 YD08
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 YD01

Stage I
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.

Stage II
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 w.p.m. is reached at the end of the course.

TYPEWRITING YD07

Stage I
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.

Stage II
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.
CERAMIC CASTING AND GLAZING TECHNIQUES

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.

CERAMIC MOULDMAKING

The course introduces students to the basic techniques of modelling and mouldmaking; it requires four hours theoretical and practical work per week for two years.

The course comprises two subjects, Mouldmaking 1 CX12 (studied during the first year) and Mouldmaking 2 CX19, which is a continuation of Mouldmaking 1 at a more advanced level. For details of the syllabus covered by the course, see the subject synopses included in the Middle Level Certificate Courses section of this Handbook.

CERTIFICATE IN EDP (Operating and Coding)

This is a one-year full-time, or the equivalent part-time, course at Form 6 level. It is designed to provide practical training in computer operating and basic programming. Students who complete this course successfully may apply for entry to the common first year of the Bachelor of Applied Science (EDP)/Diploma of EDP course.

Standard of Admission

Students are required to have obtained a pass in English, mathematics and two other subjects at Form 5 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 Quantitative Methods MS01.

Course Structure

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programming DP01 (full-time)</td>
<td>6</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Computer Programming DP02</td>
<td></td>
</tr>
<tr>
<td>Computer Programming DP03</td>
<td>(part-time)</td>
</tr>
<tr>
<td>Operating Practices DX01</td>
<td>4</td>
</tr>
<tr>
<td>Data Processing Systems DE01</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Methods MS01</td>
<td>4</td>
</tr>
<tr>
<td>English Expression GE01</td>
<td>4</td>
</tr>
</tbody>
</table>
Subject Synopses

COMPUTER PROGRAMMING DP01 (full-time)
A course of six hours of classes per week for two semesters. (Part-time students take DP02/03 instead of DP01.)
Syllabus: Introduction to programming; types of languages, programming steps and techniques (including flowcharting and algorithms), basic problem solving techniques, program debugging, testing and documentation. COBOL programming including magnetic tape processing. RPG programming, comparison 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 DP02 (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 (including flowcharting and algorithms), basic problem solving techniques, program debugging, testing and documentation. COBOL programming, including magnetic tape processing.
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 DP03 (part-time)
A course of three hours of classes per week for two semesters.
Prerequisites: Computer Programming DP02.
Syllabus: COBOL programming. RPG programming, comparison 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.

DATA PROCESSING SYSTEMS DE01
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, administration and control.
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 GE01
The subject follows the general guidelines and the syllabus determined by the Victorian Universities and Schools Examination Board (VUSEB) for students taking the Higher School Certificate Examination.

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.

Prescribed books are selected for study by reference to the VUSEB Handbook, and students are advised to consult the Handbook for more detailed information.

OPERATING PRACTICES DX01
A course of four hours of classes and practical sessions per week for two semesters.

Syllabus: The physical characteristics and operating of: hardware; basic peripherals; card reader, P/T reader and punch, line printer. Magnetic devices: tapes, discs, cards and drums. Console typewriter: CPU, control units, channels, MICR, OCR, graph plotters, key to tape, key to disc.

Software: executive messages, operating systems, job descriptions, setting up and use of macros, handling of utility programs, scheduling of jobs, multi-programming, networks.

Students have practical hands-on experience on the Institute’s large scale computer, which has numerous in-house terminals and remote job entry stations and associated communications equipment, as well as some hands on experience on minicomputers operating under DOS.

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.

QUANTITATIVE METHODS MS01
A course of four hours per week for two semesters.

Syllabus: Linear functions, inequalities and linear programming, matrices, depreciation and present value, network analysis elementary probability, presentation of data, measures of location, and dispersion, linear regression and correlation, tests of significance.

Prescribed texts: To be announced.

References: To be announced.
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; and,
- 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 XS02</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Communication and Report Writing 1A CC11</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication and Report Writing 1B CC12</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Forensic Science XK21</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Supervision 1A XV41</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Supervision 1B XV42</td>
<td>1</td>
</tr>
</tbody>
</table>

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 TF11</td>
<td>3</td>
</tr>
<tr>
<td>2nd</td>
<td>Elementary Fitting and Machining Part 2 TF21</td>
<td>3</td>
</tr>
<tr>
<td>3rd</td>
<td>Elementary Fitting and Machining Part 3 TF31</td>
<td>3</td>
</tr>
</tbody>
</table>
TOOLMAKING — YEAR 1 & 2

Toolmaking Grade is provided to enable tradesmen to commence a course of toolmaking which will be extended to Grade 2 when necessary.

1st Toolmaking Practice Part 1 TT11 3
   Toolmaking Theory Part 1 TT21 1
2nd Toolmaking Practice Part 2 TT22 3
   Toolmaking Theory Part 2 TT23 1

Engineering Inspection 1T is offered to persons employed as Inspectors, Quality controllers, etc.
1st Engineering Inspection 1T TG31 2

Subject Synopses

ELEMENTARY 1st YEAR TF11
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 TF 21
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 TF31
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.

CRANE OPERATORS BG11

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, one night per week for half a year.
RIGGER CLASS 3 AND CLASS 4
BR13, BR14

Course Code: SR

This course comprises two subjects, Riggers 3 BR13 and Riggers 4 BR14, which cover rigging working connexions with erection and dismantling of suspended working platforms for, respectively, heavy duty swing stages, and light duty swing stages and boatswains' chairs. 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.

SCAFFOLDING BS11

Course Code: SR

Students who successfully complete this course may be awarded a DLI Certificate of Competency as a Scaffolder, Classes 1 and 2. The course comprises the subject Scaffolding Construction BS11, which is studied for three hours per week for one semester (half-year). The subject covers pole scaffolding, both tube and timber frame, and cantilever and bracket.

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.

Proposed Hobbies Course in Oxy-acetylene and Electric Welding: After an introductory period, this course will allow participants to acquire certain skills in welding for practical application.

Subject Synopses

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>
<tbody>
<tr>
<td>1st</td>
<td>Electric Welding Theory 1 WE11</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric Welding Practice 1 WE12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Striking arc and forming beads; pad welding, fillet and butt welds; plug and slot welds; flame-cutting and gouging.</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>Electric Welding Theory 2 WE21</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Preparation of materials; carbon steels; electrodes; welding procedures; jigs and fixtures; flame-cutting and allied processes; appreciation of special welding processes and welding costs.</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Subject name and code — syllabus</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td><strong>Electric Welding Practice 2 WE22</strong> 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pad welding in all positions; fillet welds in all positions, using all types of electrodes; joining structural sections — butt welds in all positions.</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td><strong>Electric Welding Theory 3 WE31</strong> 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td><strong>Electric Welding Practice 3 WE32</strong> 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fillet welds — single and multi-pass in all positions; pad, plug, slot and corner welds; test plates.</td>
<td></td>
</tr>
</tbody>
</table>

**OXY-ACETYLENE WELDING**

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code — syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td><strong>Oxy-acetylene Welding Theory 1 WG11</strong> 2</td>
</tr>
<tr>
<td></td>
<td>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>
</tr>
<tr>
<td>1st</td>
<td><strong>Oxy-acetylene Welding Practice 1 WG12</strong> 4</td>
</tr>
<tr>
<td></td>
<td>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>
</tr>
<tr>
<td>2nd</td>
<td><strong>Oxy-acetylene Welding Theory 2 WG21</strong> 2</td>
</tr>
<tr>
<td></td>
<td>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>
</tr>
<tr>
<td>Year</td>
<td>Subject name and code — syllabus</td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Oxy-acetylene Welding Practice 2 WG22</strong></td>
</tr>
<tr>
<td></td>
<td>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>
</tr>
<tr>
<td>3rd</td>
<td><strong>Oxy-acetylene Welding Theory 3 WG31</strong></td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Oxy-acetylene Welding Practice 3 WG32</strong></td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

**WELDING SPECIAL WS11 (Theory)**  
**WS12 (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-butt welded 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-butt welded 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>

97
PREPARATORY & ACCESS PROGRAMS

Way-In ......................................................... 101
Trade Technical Orientation Programs .......................... 103
Tertiary Orientation Programs (TOP) ......................... 104
  Applied Science ........................................... 105
  Engineering ............................................... 105
  Art and Design .......................................... 106
  Business Studies ........................................ 106
  General Studies .......................................... 107
Higher School Certificate (HSC) ............................... 117
Preparatory Police Studies ..................................... 122
Adult Literacy Programs ...................................... 122
Programs for Handicapped People ............................ 123
Women’s Involvement Groups ................................. 123
Way-In Program

The Way-In Program is for students who intend to take Tertiary Orientation Program (TOP), or Higher School Certificate (HSC) subjects, but who need a preparatory course to bridge the gap between their present level of education and Form 6 studies. In exceptional cases, the Way-In Program may lead directly to admission to a tertiary course. It also provides an educational boost for people who intend to undertake a Certificate of Technology (see pages 29-34), Technician courses (see pages 73-76) and for potential apprentices (see pages 65-72).

A Way-In Program is studied part-time (in the evenings) during the second semester.

Course Structure
The Way-In Program is designed to guide students into one of four general areas of education:
- General Studies and Humanities,
- Applied Science and Engineering,
- Business Studies,
- Trade and Vocational Studies.

The subjects available are listed below.

Subject Co-ordinators
Two subject co-ordinators are available to discuss choice of subjects, or any other matters related to the Way-In Program. Mr Ian Rofe (ext. 2344) is co-ordinator for the Applied Science and Engineering area; Mr Mike Smith (ext. 2213) is co-ordinator for all other areas of study.

APPROACHES TO LITERATURE YC01
This is an elective subject and is designed to cater for students who are interested in studying English Literature. It is suggested that before enrolling for this subject, students consult the subject co-ordinator.

AUSTRALIAN HISTORY YC08
This is an elective subject and is intended to provide students with some background to a number of important trends in Australian History. Students intending to take History at HSC level, are advised to enrol for this subject.

BIOLOGY YT01
This course comprises a series of lectures and laboratory work; it is designed for those students who wish to study Biology at Form 6 level. Areas covered will include diversity in animals, plants and organisms, organisms and communities, adaptation on land, activity and interaction; reproduction; change in patterns of life.

BOOKKEEPING YC07
This is an introductory course. It includes an examination of journals, ledgers, trial balances, petty cash, bank reconciliation and payroll.
CHEMISTRY YT02
This course covers basic chemistry topics for students who wish to continue their chemistry study into Form 6. Laboratory work is included. The areas covered include atomic structure, the nature of matter, chemical bonds, gases, solutions, stoichiometric relationships, naming chemicals.

ENGLISH YC02
This course helps students to reach an acceptable level of written and spoken English. Attention is paid to individual weaknesses and, where possible, separate programs are designed to overcome these. One set novel is studied.

ENGLISH FOR MIGRANT STUDENTS YC03
People who require instruction in English as a second language are asked to take this course, which is designed to assist them in attaining both oral and written skills.

Note: Both English courses are specifically directed towards the development of skills necessary to attempt HSC or TOP in 1981.

GENERAL BUSINESS EDUCATION YC04
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 YC05
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.

MATHEMATICS YT03
This course is designed to lead students into HSC General Mathematics, TOP Mathematics, Sciences and Engineering and 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; probability limits.

PHYSICS YT04
This course is designed to lead students into HSC Physics. Laboratory work is included in the course. Topics studied include system of units; vectors; kinematics; particle dynamics; rotational dynamics; electricity and magnetism; optics; models of atoms; waves.

INTRODUCTION TO SOCIOLOGY YC06
This is an elective subject that centres on an examination of a number of social and political issues and problems within the context of Australian society. Some emphasis is placed on the sociological mode of investigation in considering these problems and issues.
TYPING KC09
Students will be given step-by-step instruction on keyboard mastery followed by an introduction to basic layout, letter display and easy centering and tabulation exercises.

TRADE STUDIES

(a) Building Studies
This subject introduces students to the basic techniques of the building trade and the use of tools in common practice within the building industry.

(b) Electrical Wiring
This subject involves students in wiring techniques, and a number of aspects of electrical technology.

(c) Fitting and Machining
This subject gives students an introduction to, and an appreciation of, the basic skills required in the use of hand and machine tools used in the fitting and machining trade.

Note: These subjects are offered as a part of the WAY-IN Program at 1056 and 1068 Dandenong Road, Carnegie.

Trade Technical Orientation Program

Course Code: OT

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 Wiring
- Fitting and Machining
- Plumbing
- Metal Fabrication and Welding
- Radio Studies
First and Second Term Trade Subjects

Building Studies Orientation XB01
Electrical Practices Orientation XE01
Fitting and Machining Orientation XF01
Metal Fabrication and Welding Orientation XW01
Plumbing and Sheetmetal Orientation XP01
Radio Trades Orientation XR01

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 XB08
Electrical Practices XE08
Fitting and Machining XF08
Metal Fabrication and Welding XW08
Plumbing and Sheetmetal XP08
Radio Trades XR08

Concurrently with trade studies students receive academic studies as below:

First Semester Academic Subjects:
Mathematics 1T XM01
Science 1T XK01
English 1T XX01
Graphics XB09

Second Semester Academic Subjects:
Mathematics 2T XM02
Science 2T XK02
English 2T XX02
Graphics XB09

Tertiary Orientation Program (TOP)

TOP is an alternative course to Higher School Certificate (HSC). 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 that require Form 6 standard of education.

Method of Assessment

The essential difference between TOP and HSC courses is the method of assessment. TOP students are assessed on a continuing basis throughout the
course, whereas HSC students are judged on their performance at a final, three-hour examination. 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, Engineering, Business Studies, and General Studies are shown below.

### APPLIED SCIENCE

**Course Code: EPO**

The normal standard of admission is a pass at Form 5 level in English, Chemistry, Physics, Mathematics A and B, or Mathematics 1 and 2. There are no standard exemptions for any subject; students may apply for exemptions when enrolling if they believe they are eligible.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression GE01</td>
<td>4</td>
</tr>
<tr>
<td>Pure Mathematics YM06</td>
<td>5</td>
</tr>
<tr>
<td>Applied Mathematics YM07</td>
<td>5</td>
</tr>
<tr>
<td>Physics PP01</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry KC01</td>
<td>6</td>
</tr>
</tbody>
</table>

### ENGINEERING

**Course Code: EVO**

The normal standard of admission is a pass at Form 5 level in English, Chemistry, Physics, Mathematics A and B, or Mathematics 1 and 2. There are no standard exemptions for any subject; students who believe they may be eligible should apply at the time of enrolment.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression GE01</td>
<td>4</td>
</tr>
<tr>
<td>Engineering Mathematics MM04</td>
<td>5</td>
</tr>
<tr>
<td>Physics PP01</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry KC02 Industrial</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Workshop Practices TP01</td>
<td>2</td>
</tr>
<tr>
<td>Introduction to Engineering HE01</td>
<td>3</td>
</tr>
</tbody>
</table>
ART AND DESIGN

Course Code: EAO

To qualify for admission to the course, students must have completed Form 5 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 24 'class-contact' hours per week — 12 hours are devoted to instruction in practical subjects and 12 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 AD01</td>
<td>3</td>
</tr>
<tr>
<td>Design AD04</td>
<td>3</td>
</tr>
<tr>
<td><strong>plus two subjects from the following list, to be studied in each semester:</strong></td>
<td></td>
</tr>
<tr>
<td>Photography YA08</td>
<td>3</td>
</tr>
<tr>
<td>Gold and Silversmithing YA06</td>
<td>3</td>
</tr>
<tr>
<td>Sculpture YA15</td>
<td>3</td>
</tr>
<tr>
<td>Stained Glass YA14</td>
<td>3</td>
</tr>
<tr>
<td>Ceramics YA11</td>
<td>3</td>
</tr>
<tr>
<td>Painting YA09</td>
<td>3</td>
</tr>
<tr>
<td>Printmaking YA12</td>
<td>3</td>
</tr>
<tr>
<td>Graphic Design YA16</td>
<td>3</td>
</tr>
</tbody>
</table>

**Academic subjects**

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression GE01</td>
<td>4</td>
</tr>
<tr>
<td>History of Art AH01</td>
<td>2</td>
</tr>
<tr>
<td><strong>plus two of the following subjects:</strong></td>
<td></td>
</tr>
<tr>
<td>Sociology YA02</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy YS01</td>
<td>3</td>
</tr>
<tr>
<td>Psychology YY01</td>
<td>3</td>
</tr>
</tbody>
</table>

BUSINESS STUDIES

Course Code: ETO

This course is specifically designed to fulfil the needs of mature-age students who previously have not had the opportunity to attempt a Form 6 course. Applications will be accepted from students of any age, providing that they have been out of the school system for at least one year, either employed or unemployed. A lower level of secondary education than Form 5 does not bar students from entering this course, providing they meet the other requirements and are considered to have a good chance of successfully completing the course. Students who have just completed Form 5 in 1979, are specifically not able to enter this course.

This is a one year full-time course specialising in Business Studies at year 12 (Form 6) level. An alternative to HSC but designed more specifically to prepare students to enter a tertiary course in Business at either Degree or Diploma level.
### Subject name and code

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE01</td>
<td>4</td>
</tr>
<tr>
<td>Quantitative Methods</td>
<td>4</td>
</tr>
<tr>
<td>A &amp; B NB02</td>
<td></td>
</tr>
<tr>
<td>Accounting 1A &amp; 1B NB03</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to</td>
<td></td>
</tr>
<tr>
<td>Economics 1A &amp; 1B NB01</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Law</td>
<td></td>
</tr>
<tr>
<td>1A &amp; 1B NB04</td>
<td>4</td>
</tr>
</tbody>
</table>

### GENERAL STUDIES

The normal standard of admission is a pass at Form 5 level in English and three other subjects. However, if subjects such as Chemistry and Physics are chosen, a pass at Form 5 level in these subjects is a prerequisite.

There are no standard exemptions from any subject; students who believe they may be eligible for exemptions should apply when enrolling.

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression GE01</td>
<td>4</td>
</tr>
<tr>
<td>Mathematical communication NM01</td>
<td>3</td>
</tr>
<tr>
<td>plus three other full-year subjects (or equivalent) from the list of subjects, below (part-time students are only required to take two full-year subjects).</td>
<td></td>
</tr>
</tbody>
</table>

### TOP General Studies Subjects

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Studies i.e.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any two of the following units:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Australian Urban Studies</td>
<td>NW08</td>
<td></td>
</tr>
<tr>
<td>*Literature, History &amp; Culture</td>
<td>NH07</td>
<td></td>
</tr>
<tr>
<td>*Migrants in Australian Society</td>
<td>NW09</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>YB02</td>
<td>5</td>
</tr>
<tr>
<td>*Chemistry</td>
<td>KC01</td>
<td>6</td>
</tr>
<tr>
<td>Classical Civilisation</td>
<td>NW04</td>
<td></td>
</tr>
<tr>
<td>Communication Mathematics</td>
<td>NM01</td>
<td>3</td>
</tr>
<tr>
<td>Drama and Literature</td>
<td>NH05</td>
<td>4</td>
</tr>
<tr>
<td>Drawing</td>
<td>AD01</td>
<td>3</td>
</tr>
</tbody>
</table>

*The asterisked subjects are single semester units. All other subjects are annual and are equivalent to two units.

†A student must have obtained a pass in these subjects in Year 11 (Form 5) before undertaking them in the Tertiary Orientation Program.
<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code — syllabus</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Economics</td>
<td>NE01</td>
</tr>
<tr>
<td></td>
<td>English Expression</td>
<td>GE01</td>
</tr>
<tr>
<td></td>
<td>†General Mathematics</td>
<td>NM02</td>
</tr>
<tr>
<td></td>
<td>Geography</td>
<td>NW06</td>
</tr>
<tr>
<td></td>
<td>*Graphic Design</td>
<td>YA16</td>
</tr>
<tr>
<td></td>
<td>History of Art</td>
<td>AH01</td>
</tr>
<tr>
<td></td>
<td>Human Rights</td>
<td>NH01</td>
</tr>
<tr>
<td></td>
<td>Intercultural Studies i.e.</td>
<td>NW02</td>
</tr>
<tr>
<td></td>
<td>*Asian Studies</td>
<td>NW02</td>
</tr>
<tr>
<td></td>
<td>*Migrants in Australian Society</td>
<td>NW09</td>
</tr>
<tr>
<td></td>
<td>Legal Studies</td>
<td>NL02</td>
</tr>
<tr>
<td></td>
<td>Literature and Society</td>
<td>NH06</td>
</tr>
<tr>
<td></td>
<td>*Media Studies</td>
<td>NS01</td>
</tr>
<tr>
<td></td>
<td>*Painting</td>
<td>YA09</td>
</tr>
<tr>
<td></td>
<td>Philosophy</td>
<td>YS01</td>
</tr>
<tr>
<td></td>
<td>*Photography</td>
<td>YA08</td>
</tr>
<tr>
<td></td>
<td>†Physics</td>
<td>PP01</td>
</tr>
<tr>
<td></td>
<td>Politics</td>
<td>NL01</td>
</tr>
<tr>
<td></td>
<td>Printmaking</td>
<td>YA12</td>
</tr>
<tr>
<td></td>
<td>Psychology — Human Personality</td>
<td>YY01</td>
</tr>
<tr>
<td></td>
<td>Religion and Life</td>
<td>NW07</td>
</tr>
<tr>
<td></td>
<td>Sociology</td>
<td>YA02</td>
</tr>
<tr>
<td></td>
<td>*Technology and Culture</td>
<td>NH02</td>
</tr>
<tr>
<td></td>
<td>Values in Education</td>
<td>NH08</td>
</tr>
<tr>
<td></td>
<td>Women’s Studies</td>
<td>NS02</td>
</tr>
</tbody>
</table>

*The asterisked subjects are single semester units. All other subjects are annual and are equivalent to two units.

†A student must have obtained a pass in these subjects in Year 11 (Form 5) before undertaking them in the Tertiary Orientation Program.
Subject Synopses

ACCOUNTING 1A & 1B NB03
Recording of business transactions in journals, posting journals to general ledger, extracting trial balance, recording balance day adjustments, closing the ledger. Final reports — balance sheet and revenue statement.

Understanding of coding, accounting machines and computers, system for handling cash, debtors, creditors and payroll.

APPLIED MATHEMATICS YM07
Prerequisites: Leaving Mathematics I and II or Leaving Mathematics A and B.
Syllabus: Probability; vectors; applications of calculus; mechanics including kinematics, dynamics of a particle and system of particles; statics in the plane.

ART HISTORY AH01
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.

ASIAN STUDIES NW02*
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 LITERATURE, History & Culture* NH07
The main aim of this unit will be the exploration of Australia’s culture and national character, as it has been portrayed through various writings (mainly literature, but also folksong and social commentary).

Emphasis will be given to a comparison of the writers of the nationalist period at the end of the 19th century and of contemporary works. The writings of other periods will also be considered to give a general perspective.

Assessment will be by assignment work.

AUSTRALIAN URBAN STUDIES NW08*
This unit will offer students the opportunity to develop knowledge and appreciation of the various influences on urban development in Australia.

*Single semester subjects.
Although geographical and economic factors will be included, the main emphasis will be on the social aspects of urban history.

Melbourne will be considered as a case study and students will be encouraged to concentrate on suburban history (for example, of Caulfield, Brighton or South Melbourne), plus various institutions and/or personalities which have contributed to the history and flavour of Melbourne.

As part of this assessment, students will be offered the chance to present their work in an audio-visual, as well as written, form.

**BIOLOGY YB02**

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 YA03 (Major Study) YA11 (Elective)*

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 KC01**


**CLASSICAL CIVILISATION NW04**

A study, in translation, of three of six major areas: Drama, Epic, Art, Historiography, Philosophy, and Roman Literature.

*Drama:* A study of four representative works of the Greek dramatists. Particular reference will be made to the dramatists' treatment of the mythical stories, maturity of the universal themes, significance of divine machinery, role of the chorus.

*Epic:* The prescribed texts are set purely for literary study. Aspects of the major themes and author's technique will be studied.

*Art:* A. Examples of Greek and Roman sculpture. B. A study of the vases in the Felton Collection.

*Single semester subject.*

110
COMMUNICATION MATHEMATICS NM01
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.
Syllabus: Data collection, organisation and presentation; Measures of Central Tendency; Measures of Dispersion; Probability; Probability Distribution; Flow Charts; Programming; Permutation and Combinations.

DESIGN AD04
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 NH05
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 AD01
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 NE01
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 MM04
Prerequisites: Leaving Mathematics I and II or Leaving Mathematics A and B.
Syllabus: Algebra, differential and integral calculus, co-ordinate geometry, complex numbers, vectors, probability matrices, linear programming and circular functions.
ENGLISH EXPRESSION GE01

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.

GENERAL MATHEMATICS NM02

*Prerequisites: Year 11 Mathematics I and II or Year 11 Mathematics A and B.*

*Syllabus: Algebra, differential and integral calculus, co-ordinate geometry, complex numbers, vectors, probability, matrices, linear programming and circular functions.*

GEOGRAPHY NW06

The course consists of six areas of study. They are as follows:

- Manufacturing
- Agriculture
- Settlement
- Precipitation
- Landforms
- Drainage Basin and Man.

The students select topics within this framework and study these in depth by assignment work, excursions and field studies.

GOLD AND SILVERSMITHING YA06*

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 YA13 (Major Study) YA16 (Elective)*

The historical background is outlined and the development of visual aids graphics described.

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.

*Single semester subjects.*
HUMAN RIGHTS NH01

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 KC02

Syllabus: 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 NB01

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 HE01

An introduction to basic principles covering Mechanical, Electrical and Civil Engineering.

INTRODUCTION TO LAW 1A & 1B NB04

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.

INTRODUCTION TO WORKSHOP PRACTICE TP01

A course of one two-hour laboratory session conducted covering Machine Shop Practices; Welding Practices and Electrical Practices for two semesters.

LEGAL STUDIES NL02

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 to direct concern to ordinary members of the community.

LITERATURE & SOCIETY NH03
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 NS01*
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 complete a report in one area of the subject.

MIGRANTS IN AUSTRALIAN SOCIETY NW09*
This unit will involve a study of the part migrant groups play in Australian society. While the main emphasis of the unit lies in the sociological mode of investigation, the relevance of other disciplines will also be emphasised.

The following areas of inquiry will be covered in this unit. An analysis of the ethnic composition of the Australian population, migrants' backgrounds in contrast to Australian culture, ethnic groups and their welfare needs, trade union movements and migrants, migrant women workers and discrimination, migrants and the legal system, migrants and education, Australia as a multicultural society.

PAINTING YA04 (Major Study) YA09 (Elective)*
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 YS01
A General Introduction to Philosophy
The aim of 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. They will be drawn from the areas of metaphysics, philosophy of religion, moral philosophy, political philosophy and aesthetics. The subject involves an exploration and discussion of the various writings of philosophers belonging to the ancient, modern and contemporary periods.

*Single semester subjects.
PHOTOGRAPHY YA08
The subject covers basic black and white photographic technique — how to take 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.

PHYSICS PP01
Prerequisites: Leaving Technical Physics, Leaving Mathematics A and Leaving Mathematics B or High School Leaving Physics, High School Leaving Mathematics I and High School Leaving Mathematics II.
Syllabus: Systems of units; vectors, kinematics; particle dynamics; friction; rotational dynamics; vibratory motion; electricity and magnetism; waves; optics; gravitation; radioactivity; models of atoms.

POLITICS NL01
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 YA05 (Major Study) YA12 (Elective)*
To introduce students to materials processes, and techniques in print-making. Students will acquire skills related to many processes, e.g. etching, silk screen printing, etc. fine art, print appreciation and media identification will be given along with projects at given intervals.

PSYCHOLOGY: Human Personality YY01
The general aim of the subject is to enable the student to understand better, and to the best of the student’s ability, both now and as the student grows older, the student and the student’s social environment. This aim is pursued through a study of some questions discussed by humanistic psychologists such as Rogers and Maslow, and also through a discussion of some basic concepts and ideas found in the personality theories of Freud and Jung.

PURE MATHEMATICS YM06
Prerequisites: Leaving Mathematics I and II or Leaving Mathematics A and B.
Syllabus: Real numbers, complex numbers, relations and functions, analytic geometry, differential and integral calculus and circular functions.

QUANTITATIVE METHODS A & B NB02
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.
RELIGION AND LIFE NW07
The aim of this subject is to provide a framework in which the areas of relevance, meaning and difficulty in religious awareness and life, can be examined and expressed.

The course will begin from the fact of the human quest for identity and meaning through choice of behaviour, and its relationship to a philosophy of life and the universe. Religion will be exposed for definition, and its relation to reason, belief, God, causation and the future, explored. Other ideas discussed will include those of forgiveness, sin and law, guilt, grace and values.

It is anticipated that students will become familiar with the beliefs of religions such as Buddhism and Islam, as well as that of the Old Testament, taste the poetry of some of the mystical writers, and become acquainted with the basic Christian gospel through a study of Paul’s letter to Rome. The effects of religious belief on the individual and society will receive attention.

The course should provide a certain amount of latitude for students to pursue areas of private interest.

SCULPTURE YA15*
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: Involves the making of one major work developed from experience gained in the first segment.

SOCIOLOGY YA02
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 YA14 (Elective)*
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.
Syllabus: 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).

TECHNOLOGY AND CULTURE NH02*
The aim of this subject is to promote and enhance the student’s understanding of mankind’s long and deep involvement with technology.

The topics selected for study will relate to both the historical development of technology and the current technological explosion. With the effects of

*Single semester subjects.
the modern technological revolution everywhere dramatically evident around us, this unit aims to assist students in enlarging their understanding of the complex relationships that exists between men and machines.

VALUES IN EDUCATION NH08
This course is designed as an introduction to a philosophical approach in examining education ideals. The course will consist of three main sections:

- Contemporary Approaches to Education;
- The Progressive View of Education;
- The Traditional View of Education.

General Aims: To implement a program of learning based on the tenet that ontology precedes epistemology; i.e., learning presupposes an experiential basis prior to the acquisition of any particular skills or disciplinary perspectives;

To encourage a positive attitude toward learning by relating theory to the personal experiences of the students;

To employ the skills and perspectives of a philosophical approach in order to deepen understanding gained by personal experiences; and,

To cater for individual differences by encouraging students to work in their own areas of interest and to be involved in a continuing revision and assessment of the programs.

WOMEN'S STUDIES NS02
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: EMO
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. Part-time students must pass at least two subjects during any one year of their course. Students under 25 years of age must pass a minimum of four subjects; those over 25 years must pass a minimum of three subjects.

Assessment
Students' progress will be evaluated throughout the year solely for the purpose of providing them with feedback. This internal assessment will in no way form part of the official external VISE examinations, with the exception of practical work undertaken as part of science subjects where the VISE regulations allow for it. Students are advised to familiarise themselves with the conditions set down by the 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>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Day-time</td>
<td>Evening</td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td>YF01</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Applied Mathematics</td>
<td>YM05</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>YA01</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian History</td>
<td>YW05</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian History (Survey Course)</td>
<td>YW01</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biblical Studies</td>
<td>YW06</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>YB01</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>YK02</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Classical Civilisation</td>
<td>YW04</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial and Legal Studies</td>
<td>YL02</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>YE01</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>English Expression</td>
<td>YG02</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>English Literature</td>
<td>YG03</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>YB04</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European History (1300-1600)</td>
<td>YW02</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>General Mathematics</td>
<td>YM03</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td>YW03</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>YP03</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Politics</td>
<td>YL01</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Pure Mathematics</td>
<td>YM04</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACCOUNTING YF01
An introduction to basic accounting method and an appreciation of the form and classification of financial statements, involving: balance sheet; the accounting equation; the theory of double entry bookkeeping; originating documents, journals, ledgers and trial balance; profit and loss statements and balance day adjustments; closing and reversing journal entries; stock valuation; depreciation; accounting reports; accounting for partnerships; company accounts; auditing; funds statements; budgets as a basis for future action; business finance; analysis and interpretation of accounting data.

APPLIED MATHEMATICS YM05
Prerequisiste: Leaving Mathematics I and II or Leaving Mathematics A and B. Mature-age entry.
Syllabus: Probability, vectors, applications of calculus, mechanics including kinematics, dynamics of a particle and system of particles, statics in the plane.

ART YA01
A. A folio of art or craft work containing from two to six pieces.
   Students will be offered only painting or drawing in class.
B. Appreciation of Art: A study of the main styles of art from Egyptian to
Rococo. A study of the art movements from 1750, including neoclassicism, romanticism, realism, impressionism and the modern movements in painting, sculpture and architecture. Australian art and architecture from the colonial to the contemporary periods.

ASIAN HISTORY YW05
A study of the cultural interaction between Asian and Western civilisations since the 16th century, concentrating on Indonesia. The course is not meant to be a study simply of what effect the West has had on Asia, but is concerned also with the influence of Asia on the West and with the continuing strength and significance of traditional values and institutions within modern Asian societies. 

Areas of study: Traditional Indonesia and the Coming of the West. Period of Western Domination. Emergence of Modern Indonesian Nationalism.

AUSTRALIAN HISTORY (Survey Course) YW01
A study of Australian history, from the first white settlement in 1788 to the year 1970.

Section 1: 1788-1850.
Section 2: 1851-1901.
Section 3: 1901-1950.

Emphasis is placed on the period 1850 to 1950.

The focus in Section 2 is on change and development in the colonies and their movement towards nationhood.

Section 3 concentrates on commonwealth history (i.e. domestic development and foreign relations).

BIBLICAL STUDIES YW06
The primary task of biblical scholarship is to rediscover the meaning intended by the original biblical authors. The methods used include the study of the biblical documents to gain information from language, word usage and literary form and the study of the historical background to establish dating and see the documents in the setting in which they were produced.

In the present course the book of Genesis and the Gospel of John are studied in this way. Also the theme The Problem of Suffering and Evil is studied by gathering references from throughout the Bible and comparing and contrasting these with attitudes to suffering in other religions, particularly Buddhism and Islam.

BIOLOGY YB01
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.
CHEMISTRY YK02

CLASSICAL CIVILISATION YW04
A study, in translation, of three of six major areas: Drama, Epic, Art, Historiography, Philosophy and Roman Literature.

Drama: A study of four representative works of the Greek Dramatists. Particular reference will be made to the dramatists' treatment of the mythical stories, maturity of the universal themes, significance of divine machinery, role of the chorus.

Epic: The prescribed texts are set purely for literary study. Aspects of the major themes and author's technique will be studied.

Art: Examples of Greek and Roman sculpture; a study of the vases in the Felton Collection.

COMMERCIAL AND LEGAL STUDIES YL02
Legal reasoning and the understanding of the law 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 of direct concern to ordinary members of the community.

The course consists of three parts:
- Legal rules,
- Legal structure,
- Law in action.

Each part represents a different way of viewing our legal system.

ECONOMICS YE01
The course is designed to provide students with an understanding of economic concepts and to illustrate their use in the light of Australian experience.

The syllabus includes:
- 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.

ENGLISH EXPRESSION YG02
The objectives of the course are those that are set down by the Victorian Institute of Secondary Education 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 can be obtained from the Administrative Officer.

ENGLISH LITERATURE YG03
This course offers students the opportunity to explore the diversity of ways with which our great creative writers of drama, fiction and poetry have expressed their perceptions of themselves and their world. It is hoped that an investigation of the creative uses of language will yield delight in the miracle of the creative process itself, while also bringing students to an involvement in some of the deepest issues which have characterised our civilisation. Thus it is intended that students will be engaged in a simultaneous process of self-discovery, increased understanding and enjoyment.

ENVIRONMENTAL SCIENCE YB04
This course is designed to contribute to environmental education by providing a course concerned with scientific attitudes applied to environmental management and planning. The course is suitable for students who intend to pursue tertiary scientific courses as well as those who do not.

EUROPEAN HISTORY 1300-1600 YW02
The course is organised around four basic units of core topics which must be studied by all students, and special electives of which students study at least one in depth.
Core Topics: Economic Institutions; Italian politics and government; Humanist thought; Luther and Lutheranism to 1555; or Calvin; or Catholic Reform.
Elective: Economic developments; either European government outside Italy or Machiavelli and new political thought. Either Art, or Science.

GENERAL MATHEMATICS YM03
Prerequisites: Leaving Mathematics I and II or Leaving Mathematics A and B. Mature age entry.
Syllabus: Algebra, differential and integral calculus, co-ordinate geometry, probability matrices, linear programming and circular functions.

GEOGRAPHY YW03
The course consists of six sections:
• manufacturing
• settlement
• agriculture
• landforms
• drainage basin and man
• precipitation.
In each of these sections, the students should be able to recall the meaning of the basic associated terms and be able to identify the specified criteria. They should learn to describe phenomena and distributions and be able to analyse and account for associations between different criteria.

**PHYSICS YP03**

*Prerequisite:* Leaving Physics or Mature Age Entry.

*Syllabus:* Straight line motion; vectors and scalors; laws of motion; earth's gravitational field; satellite motion; momentum, work, energy and power; wave motion; electricity and magnetism; atomic and nuclear physics; and one topic from an optional section.

**POLITICS YL01**

Politics sets out to improve the understanding of students of political institutions, of political concepts and of political issues relevant to contemporary Australia. The course also sets out to provide an analysis of Australia's relations with its traditional allies, its near neighbours and its major trading partners.

Attention is also given to ensuring that students can present the results of their work in a competent, relevant fashion.

**PURE MATHEMATICS YM04**

*Prerequisites:* Leaving Mathematics I and II or Leaving Mathematics A and B. Mature age entry.

*Syllabus:* Real numbers, complex numbers, relations and functions, analytic geometry, differential and integral calculus and circular functions.

---

**Preparatory Police Studies**

---

**Course Code 0T1**

A course of 10 weeks of three hours each, providing preparatory studies in English and Arithmetic for the Victoria Police Entrance Examination.

Normally, admission to the course requires the recommendation of the Victoria Police Recruiting Department.

**Subject:** Preparatory Police Studies CP11

---

**Adult Literacy Program**

This is an informal program to help adults develop essential literacy skills and to improve their self-confidence and self-esteem. The program is based on the concept of having students work on individual or group projects at locations and at times determined by mutual agreement between the organisers and the students. The program is co-ordinated by a member of staff, assisted by volunteers.

Anyone who would like to assist in carrying out the program or knows adults who might like to participate as students, is asked to contact Sharon Coates (ext. 2270).

122
Programs for Handicapped People

The TAFE division provides a number of courses for handicapped people who wish to extend or renew their contact with education in a relaxed, informal environment.

The courses include:

- A routine office skills program conducted at Brighton Technical School for mildly intellectually and emotionally handicapped adolescents and young adults. Areas covered in this program include: filing, duplicating, stapling, photocopying, folding, typing, work experience.

Some attention is also paid to numeracy and literacy as well as providing the students with some knowledge of their social environment.

The program is a full-time one during the day. It starts early in March and concludes in late October.

- A pre-vocational program for students in their final year of special school. The aim of the program is to give boys and girls with various handicaps, emotional, physical and intellectual, relevant experience for jobs when they leave school. These include process and assembly work, office duties, gardening and repetitive engineering work.

The schools presently participating in the program, which is conducted one day per week, include:

- Marathon Special School
- Victorian School for Deaf Children
- Glendonal School for Deaf Children
- Rossbourne House
- Dandenong Special School
- Marillac House
- Moorabbin Day Training Centre
- Royal Victorian Institute for the Blind

- A course for intellectually-handicapped adults conducted one evening per week. This course is designed to meet the needs of people attending day training centres. Its aims include:

  to develop confidence and autonomy as adults;
  to provide a means of pursuing purposeful and interesting hobbies and leisure occupations;
  to develop some academic skills in the areas of numeracy and literacy;
  to develop and expand social contacts and activities.

Women's Involvement Groups

These are 10-12 week courses for women who wish either to return to study, or to involve themselves in intellectually stimulating discussion and study groups. Generally, sessions take place off the CIT campus at locations in the Caulfield, Malvern and Brighton areas, one morning per week. Courses offered fall into three different categories:

HUMAN RELATIONS (Basic 2 groups)

This course seeks to create an atmosphere of caring and acceptance in which participants become involved in a variety of activities designed to:
assist growth in self awareness;
• promote awareness and understanding of the needs and feelings of others;
• improve communication skills, especially listening;
• encourage the exploration of values and feelings;
• discuss one's own worth as a person and the worth of others;
• deal creatively with conflict.

THE WAY TO NATURAL HEALTH
Involving both theoretic and practical sessions, this course aims at a better understanding of the workings of the body and of methods to maintain it in good health. It includes the following areas: bodily functions, nutrition, the nature of disease, cleansing, methods of self-diagnosis, coping with stress, understanding energies; practical sessions on breathing, posture, yoga, shiatsu and therapeutic massage.

BOOK & FILM DISCUSSION GROUP
Books and films provide the basis for an exploration of oneself and of the ideas and values that shape our world. The course includes visits to current films and has an experimental and personal rather than a literary flavour.

INDONESIAN CULTURE & LANGUAGE
Designed to foster individual interests. The course includes studies of Indonesian geography, history, religion, and lifestyles. Special facilities are available for cookery and language tuition.

MIGRANT ENGLISH
This course is designed to assist women who require instruction in English as a second language. Basically, it will concentrate on helping them to attain both oral and written skills. Language laboratory work will be incorporated into the program as well.

ART APPRECIATION
An introduction to "traditional" and contemporary fine art. The course includes excursions, discussions, lectures, and slide shows, and practical tuition at a personal level.

PERSONAL AND SOCIAL ISSUES
Designed to further awareness of oneself and the society in which one lives, the specific focus of this course centres round the role of women in society. Topics include family, health, media, education and employment, politics.

MOVEMENT & DANCE FOR RELAXATION
This course is designed for fitness and fun, catering to all ages and levels of fitness. It includes exercises to music, creative movement and dance.
SHORT COURSES FOR RECREATION, LEISURE AND SELF-ENRICHMENT
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Business Programs</td>
<td>127</td>
</tr>
<tr>
<td>Foundations of Professional Writing</td>
<td>127</td>
</tr>
<tr>
<td><strong>Short Courses</strong></td>
<td>128</td>
</tr>
<tr>
<td>Approaches to Literature</td>
<td>128</td>
</tr>
<tr>
<td>Bookkeeping (Advanced)</td>
<td>128</td>
</tr>
<tr>
<td>Bookkeeping (Basic)</td>
<td>129</td>
</tr>
<tr>
<td>General Business Education</td>
<td>129</td>
</tr>
<tr>
<td>Guitar (Folk and Classical)</td>
<td>129</td>
</tr>
<tr>
<td>Human Relations</td>
<td>129</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
<td>129</td>
</tr>
<tr>
<td>Introduction to Sociology</td>
<td>129</td>
</tr>
<tr>
<td>Languages: German</td>
<td>130</td>
</tr>
<tr>
<td>Indonesian</td>
<td>130</td>
</tr>
<tr>
<td>Italian</td>
<td>130</td>
</tr>
<tr>
<td>Spanish</td>
<td>131</td>
</tr>
<tr>
<td>Life Drawing &amp; Painting</td>
<td>131</td>
</tr>
<tr>
<td>Photography (Basic)</td>
<td>131</td>
</tr>
<tr>
<td>Shorthand (Theory)</td>
<td>131</td>
</tr>
<tr>
<td>Shorthand (Speed)</td>
<td>131</td>
</tr>
<tr>
<td>Transactional Analysis</td>
<td>132</td>
</tr>
<tr>
<td>Typing (Basic)</td>
<td>132</td>
</tr>
<tr>
<td>Typing (Advanced)</td>
<td>132</td>
</tr>
</tbody>
</table>
Small Business Programs

Planning and Starting A Small Business
To develop an understanding of how to plan and start a small business.
Introduction
• checklist on starting a small business
• sources of finance
• marketing
• financial management
• putting it all together
• a small business entrepreneur tells his/her story.

Operating A Small Business
To develop an understanding of how to operate a small business and to assist in managerial decision making.
Introduction
• record keeping
• taxation
• legal aspects
• financial management
• marketing
• insurance.

Bookkeeping For Small Business
To develop an understanding of basic bookkeeping procedures, to maintain the records for a small business.
Introduction
• analysis of bookkeeping transactions, debits, credits
• cash journals, bank reconciliation and petty cash
• credit journals, debtors and creditors
• general ledger and general journal
• balance day adjustments
• trading, profit and loss statements
• balance sheet and financial reports

Foundations of Professional Writing

Communication Strategies
The subject is concerned with various aspects of communication, and it is intended to assist students in their development as communication strategists. It entails an analysis of the elements of communication and an acquaintance with some of the subtleties 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 and the nature, functions and effects of the mass media will be analysed, and their scope to inform and persuade will be examined.

**Basic English Competence**
The subject involves a review of grammar, usage, diction, punctuation and other mechanics of language. Students will be able to do written exercises during workshop sessions.

**Factual Writing and Methodology**
The subject is designed to help students develop skills that are relevant to different forms of factual writing. This will include the writing of essays, reports, briefs, reviews etc. The study also aims at the development of critical faculties, and a great deal of emphasis is placed on the development of skills required in various types of research.

**Imaginative Fiction and Play Writing**
The course involves instruction in the basic principles of fiction-writing and writing for the stage. This will include the writing of short stories, novels, one-act plays and long plays. Works by well-known writers will be studied and training given in textual analysis.

**Radio, Television and Film Scripting**
The course will include instruction in the basic principles of script-writing for radio, television and film. Detailed analyses of professional examples will be made and form and meaning studied. Students will have the opportunity of producing their own work on video-tape, sound-tape and film. Training will be given in the practical techniques required to develop an original idea, by progressive stages, to a finished production. Emphasis will be placed on the importance of team work in this area.

**Short Courses**

**APPROACHES TO LITERATURE**
This course offers students the opportunity to explore some of the deeper, more significant issues of our time through the reading and discussion of a few selected plays, poems and novels. It is hoped that through discussion of such issues, students will expand their own awareness of themselves and their world. It is hoped also that students will gain an appreciation of how the richness and diversity of language used by such writers helps them communicate their understanding of human experience. Such an appreciation is invaluable to further study of literature, and to further reading enjoyment.

**BOOKKEEPING (Advanced)**
This course follows on from the basic bookkeeping program. The topics covered will include:
- revision of bookkeeping cycle
- stock recording
- revenue statements and balance sheets
- control accounts and subsidiary ledgers
- depreciation and asset registers
- club accounts
- an introduction to budgeting.

BOOKKEEPING (Basic)
An introductory course including journals, ledgers, trial balance, petty cash, bank reconciliation and payroll.

GENERAL BUSINESS EDUCATION
This course is designed to provide students with a background to business and the law, with emphasis on economics and the consumer sociology.

GUITAR (Folk and Classical)
A series of acoustic guitar lessons endeavouring to broaden an elementary guitar knowledge and introducing various styles.

The students will be given an opportunity to concentrate on traditional classical guitar (incorporating standard techniques and note reading) and/or contemporary styles such as ragtime and folk.

HUMAN RELATIONS
There are many areas included in the subject of Human Relations. Topics like values, communication skills, attitudes, feelings, behaviour, childhood socialisation are all part of the general area.

There is some academic input into the course and some parts are experiential where you will learn primarily by doing, using role plays and structured experiences.

It is hoped that the outcome from such classes would include improvement in communication skills and listening, an increase in self-awareness, an understanding of the needs and feelings of others and an ability to deal more creatively with conflict.

INTRODUCTION TO PSYCHOLOGY
The general aim of the subject is to enable the student to gain a greater insight into himself and his interaction with his environment.

Topics selected to study will relate to various personality theories. Special emphasis will be given to the writings of humanistic and depth psychologists, as well as to attitudes and attitude development.

INTRODUCTION TO SOCIOLOGY
This subject will centre on an examination of a number of social and political issues and problems within the context of Australian society. Some emphasis will be placed on the sociological mode of investigation in considering these problems and issues.
LANGUAGES

**German for Beginners**
The course is designed to promote a balanced development of the six basic skills of:
- Reading German
- Writing German
- Translating from German
- Translating into German
- Speaking German
- Comprehending basic German

**Course outline**
Definite article: masculine, feminine, neuter, nominative, accusative, genitive, dative.
- Indefinite article
- Personal pronouns — nominative case
- Present indicative of *sein* and *haben*
- Negative constructions
- Words declined like definite article
- Words declined like the indefinite article
- Present indicative of weak and strong verbs
- Use of *es, das* and *dies* with *sein*
- Formation of feminines
- Compound nouns

*Text: Deutsch 2000 — Book 1. (Roland Schapers)*

**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
- Gain some understanding of the geographical and cultural background of our nearest neighbours.

**Course outline**
- Pronunciation practice
- Numbers, prices and colours
- Greetings and clock times
- Simple questions and answers
- Days of the week, dates and months
- Position of the adjective
- Negation: use of *tidak* and *baik*
- Use of *ini* and *itu*
- Personal and possessive pronouns

*Text: H. Hendrata, Audio-Lingual Course in Bahasa Indonesian, I.A.*

**Italian for Beginners**
A basic introductory course of conversational Italian held in informal circumstances, with writing and reading instruction and general discussion of Italian historical, social and cultural facets.
Spanish for Beginners
This course in Spanish aims right from the start to build up a working knowledge of everyday Spanish — both spoken and written. Structures are practised first orally and later in written form. The text book used is *Eso Es*, by *Masoliver, Hakenson & Beeck* (Longman 1975). It deals effectively with everyday situations through prose and dialogues, and manages to provide a considerable amount of cultural information about the land and peoples of Spain and Latin America.

LIFE DRAWING AND PAINTING FOR BEGINNERS
Students will be given an introduction to drawing using a variety of media, including pencils, charcoal, conte crayon.

Painting media will include oil painting, water colour, acrylic and mixed media.

Students will be given a variety of approaches to life drawing and painting that will increase their perception.

The following materials will be required for the first lesson:
- Pencils HB, 2B, 4B, 6B
- Kneadable rubber
- Two bulldog clips
- Six sheets of cartridge and newsprint paper (size 20” x 30”)

PHOTOGRAPHY (Basic)
This course enables students to:
- Learn the mechanical tasks associated with operating a camera;
- Learn the basic elements associated with film exposure, so that they may be applied to the use of a light meter;
- Explore the communication and creative possibilities of the camera;
- Research material for a creative or communication exercise;
- Organise a work schedule and work to it.

The course will also cover:
- Developing, printing and analysis of the results;
- Possibilities of manipulation in developing and printing stages;
- Presentation of photographs;
- Various cameras and their advantages;
- The examination of photographs from other sources and critical evaluation of the impact and the means by which it is obtained.

SHORTHAND (Theory)
Classes in Pitman’s 2000 Shorthand will consist of 15 lessons on the principles of shorthand including vowel indication, short forms, phrases. 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)
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.
TRANSACTIONAL ANALYSIS

The course aims to acquaint persons with the basic principles of Transactional Analysis and with the interpretation of Transactional Analysis and its applications to the daily life of the individual in the community.

To introduce people to Transactional Analysis as a useful method for personal growth and improvement of relationships of all kinds, for example, marriage, family, employer and employee, teacher and student.

To acquaint participants with their own potential to develop awareness, spontaneity and autonomy of themselves and to focus them on tools that can be used to develop these concepts in a non-threatening way.

TYPING (Basic)

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

TYPING (Advanced)

This course allows students who have already mastered the keyboard to achieve a higher standard of proficiency in all areas of display.

For further information contact Rita Aldama or Patricia Hosking on 573 2422 between 8.30 a.m. to 6 p.m., Monday to Thursday, and between 9 a.m. to 5 p.m. on Friday.
CIT Council (as at 31 July 1979)

PRESIDENT
Geoffrey N. Doolan,
LL.B. (Melb.)

VICE-PRESIDENTS
Lisa Brodribb,
M.A., Ph.D. (Melb.), F.A.I.M.
Donald H. Peebles

SECRETARY
Maurie W. Blank,
B.Sc., A.S.A., M.A.C.E.

MEMBERS
William K. Allen,
B.Com. (Melb.), F.A.I.M.
Ronald Beckett,
B.Sc. (Hons), Ph.D. (Melb.), A.R.A.C.I.
A. Benn
Alan J. Brown,
Edward J.P. Clayfield,
B.Sc. (Melb.) A.F.A.I.M.
Alan K. Collins,
Lenore A. Cox,
M.A., B.Ed. (Qld)
Ronald Cumming,
B.E. (Syd.), A.M. (Michigan), M.E. (Melb.), C.Eng., M.A.Ps.S.,
M.I.E.Aust., M.R.Ae.S.
Ian Garnier,
Dip.Bus. (Accounting), A.C.A.
Ronald D. Hill,
B.Com, B.Sc. (Hons) (Melb.)
H. Robert Milner,
M.Eng.Sc. (Qld), D.I.C. (Imperial College), Ph.D. (London),
M.I.E.Aust.
Thomas G. Pickford,
A.C.A., A.A.S.A., A.C.I.S., A.F.A.I.M.
Adrian S. Power,
B.Sc. (Melb.), M.App.Sc. (NSW)
William F.L. Reese,
M.L.A., A.A.S.A., A.C.I.S.
J. Douglas Riley,
F.C.A.
Ronald G. Ritchie,
CIT Council

Kenneth T. Scott
Alan G. Thomas,
  Dip.App.Art(RMIT), T.T.T.C.
W. Ronald Walters,
  M.B.E., J.P.
J.W. Morris Watson,
  B.Com.(Melb.), A.F.A.I.M., F.I.P.M.

Administration

DIRECTOR
Ronald W. Cumming,
  B.E.(Syd.), A.M.(Michigan), M.E.(Melb.), C.Eng., M.A.Ps.S.,
  M.I.E.Aust., M.R.Ae.S.

Secretary
Veronika Martens

Projects Officer
Pam Abbott,
  B.A., Dip.Ed.(Monash)

DEPUTY DIRECTOR
Richard J. Snedden,
  B.A.(Hons), LL.B.(Melb.), B.Ed., (Monash), M.A.C.E.

Secretary
Edna Baxter,
  Dip.I.P.S.A., F.I.P.S.

DEPUTY DIRECTOR (TAFE Division)
Peter F. Cutter,
  B.Com.(Melb.), M.Ed.(Monash), M.A.C.E.

Secretary
Sally A. Metherall

SECRETARY
Maurie W. Blank,
  B.Sc., A.A.S.A., M.A.C.E.

Secretary
Irena Anderson

ACADEMIC REGISTRAR
David Muffet,
Assistant Registrar
Michael Willis,

Academic Secretary
Alan C. Young,
B.A.(Monash)

Admissions Officer
Jack W. Coombe,
M.B.E., A.R.S.H.

Student Administration Services Officer
Wendy Adams

Student Loans Officer
Eve Yamouni,
LL.B.(Melb.)

Statistics and Computer Records Officer
Gemma Rigutto,
B.Sc.(Hons.) (Monash)

Timetable and Examinations Officer
Rhys Sweatman,
B.A.(Melb.)

Schools Liaison Officer
Carol Pickering,
B.A.(Melb.)

Records Manager
Stephen Hart

BUILDINGS OFFICER
Kenneth W. Raverty

Secretary
Ann Tamhane

Projects Manager
Robin Bradnick

Resident Caretaker
James Gorse

CATERING MANAGER
Alan Nicholson

FINANCIAL CONTROLLER
Alan Hamstead,
A.A.S.A.
Secretary
Anne Gerrard

Budget Co-ordinator
To be appointed

Senior Accountant
Terence Russell,
A.A.S.A.

Systems Accountant
Paul Kindler,
Dip.Bus.(CIT), A.A.S.A.

INFORMATION OFFICER
Neville Weeraratne

Information Assistant
Laurian Love,
B.A.(Hons.), M.A.(Monash)

PRINTING SERVICE MANAGER
Margaret A. Blank

Operations Manager
Merryl Sherriff

Graphic Designer
Sharon Arnott,
Dip.A&D.(CIT)

STAFF OFFICER
Graeme S. Langford,
B.Ec.(La Trobe)

Secretary
Elizabeth Thomas

Appointments Officer
To be appointed

Staff Administration Officer
Gotu Tamhane

Careers & Employment Service

CAREERS & EMPLOYMENT OFFICER
Austin W. Chapman,
A.A.I.I., A.C.I.S., Cert.Marketing Admin. (RMIT) B.A.(VIC),
Dip.Ed.Counselling (RMIT), M.A.Ps.S.

Student Employment Officer
Marian A. Steele,
B.Ec. (Monash), Dip.Ed. (Monash)
Career Information Officer
Warwick D. Slade,
Grad. Dip. Career Ed. (RMIT)

Research Assistant
Max K. Hicks,
B.Sc. (Adelaide)

Student Union

UNION OFFICER
Steve Dobson,
B.Sc. (Hons.), Dip. T.P. (London)

SHOP MANAGERESS
K. O'Brien

Secretaries
*H. Evans
*J. Sexton
*Part-time appointments

Computer Centre

MANAGER
L. John Dann,

Secretary
Kaye N. Hughes

Operations Manager
Ray E. Newland,

Senior Systems Analyst
Ian Caine,
B.Sc. (Hons) (Syd.), M.B.A. (Melb.), M.A.C.S.

Chief System Programmer
Duncan C. Roe,
B.Sc. (Hons) (Edin.)

Systems Analysts
Annette Y. Curtis,
M.A.C.S.
Stewart J. Olney,
M.A.C.S.

Programmer In Charge
Robert A. van Eyk

Programmer in Charge
Robert A. van Eyk
Programmers
Stephen R. Balogh,
A.A.C.S.
Percy B. Blackburn,
B.Sc. (Wales), L.R.I.C., M.A.I.P.
Morris A. Freedman,
B.E.(Civil), Grad.Dip.D.P.
Daril J. Gawith
Roslyn K. Moffitt

Computer Operators
Neil W. Brewster
Yvonne P. Conyers
Egils Davis
Michael S. Efstathiadis,
Cert.E.D.P.(Operating & Coding)
Brian E. Sheehan
Richard E. Suttle
Robert J. Tonizzo,
Cert.E.D.P. (Operating & Coding)
Christine A. Turner,
Cert.E.D.P. (Operating & Coding)
Greg E. Walsh

Punch Room Supervisor
Nancy A. Knowles

Counselling Services

HEAD OF COUNSELLING SERVICES
Kim Wyman,

Secretary
Meg Bird

Welfare/Support Service
John Milburn,
Cert. of Welf.(ISW), M.A.I.W. — Welfare Officer (Co-ordinator)
Pam Hall —
Receptioniste
Fr. Jim Scarlett —
Chaplain

Health Service
Chris Hazzard,
M.B., B.S.(Melb.) — Medical Consultant (Co-ordinator)
Ivor Davis,
B.Sc., M.B., B.S.(Monash) — Medical Consultant
Marj Dimsey,
S.R.N. — Relieving Sister
Livia Jackson,  
M.B., B.S.(Monash) — Medical Consultant  
Marianne Leith,  
S.R.N. — Nursing Sister  
Barbara Pittard,  
S.R.N. — Nursing Sister  
Sheila Skidmore,  
S.R.N. — Nursing Sister  

Consulting Service  
Miriam Tisher,  
M.A.(Melb.), M.A.Ps.S. — Counsellor (Co-ordinator)  
Elliott Katz,  
M.Sc.(West Virginia), B.A.(Washington College), M.A.Ps.S. — Counsellor  
Rhonda Millar — Counsellor  
Tim O’Leary,  
Cert. of Welf.(ISW), M.A.I.W. — Counsellor  
Andrew Winter,  
B.A.Hons.(Melb.), Dip.Ed.(Media-LaTrobe) — Counsellor  

Children’s Service  
Trudi Reus  
— Family Day Care Service (Co-ordinator)  
Denise Golds — CIT Group Care Centre (Co-ordinator)  

Educational Development Unit  

HEAD  
Charles E. Noble,  
B. Com., B.Ed.(Melb.) M.A.(Monash), M.Ed.(LaTrobe)  

Secretary  
Valerie Brokenbrow  

Lecturer  
Robert M. Thompson,  
B.Sc., Dip.Ed.(Monash) — in charge of media services  

Technical Officers  
Robert H. Clarke  
Peter R. Taylor,  

Technicians  
Barry Bron  
Barbara J. Hannay,  
Dip. Graphic Design (Swinburne)  
Bernadette Miles
Library

CHIEF LIBRARIAN
Patrick Condon,

Secretary
Heather Stonehewer

ACADEMIC SERVICES DIVISION

SENIOR LIBRARIAN
Chooi-Hon Ho,
  B.A.(Hons.) (Malaya), A.L.A., A.L.A.A.

Information & Resources Librarians
Wendy Critchley,
  B.A.(Qld.), A.L.A.A. — General Studies
David Foott,
  B.A.(JCUNQ), A.L.A.A. — Engineering
Jean Gourlay,
Megan Lilly,
  B.A.(Syd.), Dip.Lib.(RMIT), A.L.A.A. — Business
Judith Odgers,
Joan Rae,
  Dip.Lib.(BCAE) — Art & Design.

Library Officer
Mary Cox

SYSTEM DIVISION

SENIOR LIBRARIAN
Neville Houghton,

Librarians
Henning Rasmussen,
  Dip.Lib.(Copenhagen) — System Co-ordinator
Jean Tindall,
  B.A.(Melb.), A.L.A.A. — Bibliographic Co-ordinator
Vacant —
  Management Information Co-ordinator

Library Officers
Enid Carr —
  Cataloguing
Linda Parsons,
  B.A.(New England), Dip.Lib.(RMIT) — System
Catherine Wallace,  
*Dip.Gen.Studies(CIT), A.L.A.A. — Cataloguing*  
Robert Walshe-Howling,  
*B.A.(Hons.) (Monash) — Lending Services*  

**Library Technicians**  
Piya Arumapperuma  
Rex Bell  
Fay Bower  
Patricia Mangan  

**ANNEXE**  

**SENIOR LIBRARIAN**  
Marion Taylor,  
*B.Sc.(Melb.), A.L.A.A.*  

**Library Officer**  
Margaret Tempest,  
*A.L.A.A.*  

**Library Technicians**  
Liz Greig  
Faye Pattinson  

**Student Union Council**  
Membership of the various committees constituting the 1979 council.  
Elections are held in March of each year, so many members will be different for 1980.  

**EXECUTIVE**  
President  
Vice President  
Treasurer  
Secretary  
**WELFARE**  
Anthony Benn  
Damian Dickson  
Bernard Brady  
Merarth Cooper  
Jordan Halkidis  
Lucy Davey  
Ray Nottle  
Jan Waring  
Judy Glenn  
Dale Roberts  

**SPORTS**  
Noel McDonald  
Simon Hannon  
Malcolm Cook  
Silvio Salom  
Graham Underwood
### MEDIA
- Jim Lee
- Lili Antolino
- Judy Scown
- Andrew Mitchell
- Trevor Stacpoole
- Mark Karpovich
  (ex-officio representing the *Naked Wasp*)

### ACTIVITIES
- Angie Venuto
- Mark Bell
- Peter Estella

### COMMUNITY AFFAIRS
<table>
<thead>
<tr>
<th>Education</th>
<th>Mick Kennedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Jools Hughes</td>
</tr>
<tr>
<td>Environment</td>
<td>Vince Cicconi</td>
</tr>
<tr>
<td>Education</td>
<td>Helen Scotts</td>
</tr>
<tr>
<td>Race</td>
<td>Ena Burstin</td>
</tr>
</tbody>
</table>

### EDUCATION
<table>
<thead>
<tr>
<th>General Studies</th>
<th>Paule Tishler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Noel Conway</td>
</tr>
<tr>
<td>S.O.S.</td>
<td>Sarah Barnard</td>
</tr>
<tr>
<td>Applied Science</td>
<td>Leigh Snell</td>
</tr>
<tr>
<td>S.I.S.</td>
<td>Vacant</td>
</tr>
<tr>
<td>Engineering</td>
<td>Vacant</td>
</tr>
</tbody>
</table>

### A.U.S. SECRETARY
- Rob Hardy

### DEPUTY TREASURER
- Andrew Green
TAFE Division

DEPUTY DIRECTOR
PRINCIPAL, TAFE DIVISION
Peter F. Cutter,
B.Com(Melb.), M.Ed.(Monash), M.A.C.E.

Secretary
Sally A. Metherall

VICE PRINCIPAL
Head of School,
Industrial & Commercial Studies
Alan R. Baird,

Secretary
Kay Grant

VICE PRINCIPAL
Head of School,
Apprentice & Skill Training
To be appointed

Secretary
To be appointed

VICE PRINCIPAL
Head of School
Foundation & Preparatory Studies
To be appointed

Secretary
To be appointed

VICE PRINCIPAL
Head of School
Community & Access Programs
To be appointed

Secretary
To be appointed

PLANNING OFFICER
Peter F. Cunliffe
ADMINISTRATIVE OFFICERS

Patricia M. Hosking,
B.A.(Canterbury), Dip. Teach.(N.Z.)

Audrey L. Ross

Administrative Assistant
Rita R. Aldama,
B.A.(Melb.)

Secretarial Staff
Chrissie Coutsourelos
Anna Malady
Debbie J. Milledge
Anna Notarberardino
Karen Smith
Vicki Cooney
Jan E. Layfield
Claude C. Renaut
Mafalda Ruberto

Teaching Staff

Henry C. Akerstein,

Robert M. Akister,
T.Tr.I.C.(SCVH)

Nola Arch,
B.A.(Melb.), Dip.Ed.(Monash)

Trevor J. Bankin,
T.Tr.I.C.(SCVH), Tech.Cert.(Building) (CIT)

Stephen Bird,
B.Juris(Monash), Dip.Ed.(SCVH)

Mike J. Bishop,
T.Tr.I.C.(SCVH)

Robyn Bishop,

George D. Bouras,
Cert.Eng.(RMIT), T.T.I.C.(SCVH)

Ken A. Boyd,
M.A.(Glasgow), Cert.Ind.Rels.(Strathclyde),

Paul Brin,
M.A.(Melb.), Dip.Ed.(Melb.)

Lenny V. Cahill,
T.Tr.I.C.(SCVH), Prod.Technician Cert.(CIT)

Jane M. Campbell,
B.A.(Monash), Dip.Ed.(SCVM)

Marie A. Carroll,
B.A.(Melb.), B.Ed.(La Trobe), T.S.T.C.(SCVM)
Richard Carter,
B.A., Dip.Ed.(La Trobe)
Robert C. Clayfield,
Dip.Chem.Eng.(Swinburne), Dip.Ed.(SCVH)
Dennis A. Cleverley,
T.Tr.I.C.(SCVH)
Sharon L. Coates,
B.A.(Melb.), Dip.Ed.(La Trobe)
Alan F. Coggins,
T.Tr.I.C.(SCVH)
Frank J. Colgan,
Mike N. Cornish,
B.Sc., Dip.Ed.(Monash)
Brian Dawson,
B.Bus.(Swinburne), Dip.Ed.(SCVH)
Stephen Dean,
Bernadette Delaney,
B.A.(La Trobe), Dip.Ed.(La Trobe)
H. Martin Dykstra,
B.Com.(Melb.), Grad.Dip.Fin.Mgt.(UNE), A.A.S.A.(Snr),
T.T.T.C.(SCVH)
Lynette Eggleston,
High.Dip.Teaching(SCVM)
Ron H. Erdman,
T.Tr.I.C.(SCVH)
John W. Evans,
Joan E. Fawcett,
B.A.(Williamette Uni., Oregon, USA), S.T.C.(Berkeley)
Julius Fekete,
Jenny B. Ferber,
M.A.(Melb.), Dip.Ed.(La Trobe)
Jim Fitzpatrick,
Thomas Fogarty,
B.A.(FIT), Dip.Ed.(SCVH)
Ian S. Fox,
Eli Fryher,
B.App.Sc.(RMIT), T.T.T.C.(SCVH)
Ronald Gascolgne,
Kamile Georgious,
Henry Gersh,
B.Sc(Hons), Dip.Ed.(SCVH)
Lesley A. Greagg,
B.A.(W.A.), M.A.(Monash)
Guy R. Griffin,  
H.N.C.Prod.Eng.(Stowe College, Glasgow), A.M.I.Prod.E.,  
T.Tr.I.C.(SCVH)

Ken Griska,  
B.Build.(Melb.), T.T.T.C.(SCVH), A.A.I.B.

Elizabeth K. Hatte,  
B.A.(Qld.), Dip.Ed.(Qld.)

John R. Heaton,  
B.Sc.(Hons), Dip.Ed.(Monash)

Katherine Heffey,  
B.A.(Monash), Dip.Ed.(SCVH)

Jennifer Henderson,  
B.Sc.(Melb.), Dip.Ed.(La Trobe)

Judy A. Herreen,  

Alan R. Hill,  
Chartered Engineer, M.I.Prod.E., T.T.I.C.(SCVH),  
Dip.Prod.Eng.(RMIT)

Joe Hirst,  

Dennis Hobbs,  
B.Com.(Melb.), Dip.Ed.(SCVH)

Gabrielle Hubbard,  
B.A., Dip.Ed.

Mike Hurley,  
B.A.(Hons) (Sydney), Dip.Ed.(SCHVH)

Max Kaplan,  
Dip.Criminology(Melb.), B.A.(Monash), B.Ed.(Monash),  
T.S.T.C.(SCVR)

Janet E. Kindler,  
B.A.(Monash), Dip.Ed.(SCVH), Grad.Dip.Special Education  
(SCVM)

Peter T. King,  

Irene M. Kott,  
B.A.(Hons), Dip.Ed.(Monash), M.Ed.(Monash)

Helen Lay,  
B.A.(Monash), Dip.Ed.(Monash)

Norah Lee,  
Dip. in Commerce (Glasgow College of Tech.), Teaching  
Cert.(Secondary Ed.) (Jordan Hill Training College)

Darryl P. Lemondine,  
H.N.C.(UK)

Sam B. McInnes,  
T.Tr.I.C.(SCVH), Tech.Cert.(Building) (CIT)

Gavin H. McMurray,  
Cert.Chem.(RMIT), T.T.I.C.(SCVH)

Peggy McMurray,  
B.A. Carnegie — Mellon Pittsburgh, B.Ed. Counselling

Helen Maher,  
Assoc.Dip.Sec.Practice(CIT), T.T.T.C.(NSWTE)
Lorraine Margis,
B.A.(Monash), Dip.Ed.(Monash)

G. Kevin Maurer,
T.Tr.I.C.

Barry J. Meere,
T.Tr.I.C.(SCVM)

Leonie M. Millar,
B.A.(Monash), Dip.Ed.(Monash)

Gary Newitt,

Allan D. Padgett,
B.Sc., Dip.Ed.(La Trobe)

Ken J. Penaluna,
H.D.T.S.(SCVR)

Janet M. Perry,

Ron C. Petersen,
H.T.C.(NSW), Ind.Elec.Cert.(CTC), T.Tr.I.C.(SCVH)

Vera Petrakou,
Dip.Commercial Practice (RMIT), T.T.T.C.(Toorak Teachers' College)

Catherine M. Pitman,
B.A.(Melb.), Dip.Ed.(SCVM)

Ron E. Pitts,

Bruce Prescott,

Michael D. Quinn,

Brian Reed,

Ian V. Rofe,

Amanda M. Rogers,
B.A.(Monash), Dip.Ed.(SCVR)

Paul A. Russell,
B.Ed.(Envir.Sci.) (SCVR)

Herman Safransky,
B.Sc.(Eng.) (Columbia, USA), Dip.Ed.(SCVH)

Steve J. Shaw,
T.Tr.I.C.(SCVH)

Neil R. Skepper,
T.Tr.I.C.(SCVH)

G. Michael Slusher,
B.A. (Miami University, Oxford, Ohio, U.S.A.)

Michael Smith,
B.A.(Hons) (Monash), T.P.T.C.(SCVF)

Joan S. Snedden,
Arthur A. Stenhouse,
Anne S. Stocker,
  B.A.(Melb.), T.S.T.C.(Melb.)
Maryanne Stokes,
  B.A.Dip.Ed.(Melb.)
Rick J. Stout,
  T.Tr.l.C.(SCVH), Tech.Cert.(Building) (CIT)
Russell Swann,
  B.App.Sc.(RMIT), B.Ed.(WASTC), FRMIT (Physics)
Elizabeth Taylor,
Colin L. Thompson,
  B.Sc.(Monash), M.Sc.(Liverpool), Dip.Ed.(Monash)
Louise Tinney,
  B.A.(Melb.), Dip.Ed.(La Trobe)
Christopher J. Tobin,
  Dip. of General Studies (CIT), T.P.T.C.(SCVT)
Ken R. Tonta,
Dave J. Tout,
  B.Sc., B.Ed.(Monash)
Marie C. Trigg,
Eleanor S. Veltman,
  Fellowship Dip.Fine Art (Printmaking) (RMIT), Dip. Art & Design
  (Printmaking) (CIT), Dip.Ed.(SCVH)
Ian W. Vizard,
Dirk E. Wagner,
  Ceramic Industrial Cert.(Berlin), T.T.I.C.(SCVH)
Ken Walker,
  T.T.T.C., A.R.M.I.T., B.A.(Hons) (Monash)
Wally G. Wallbank,
  T.T.I.C.(SCVH)
Rodney Watts,
  B.A.(Melbourne Uni.), B.S.W.(PIT)
Julia White,
  Dip. Fine Art (Printmaking) (PIT), Dip.Ed.(SCVM)
Sue Wilder,
  B.A.(Monash), Dip.Ed.(Monash)
William F. Winford,
Russell Woodley,
  B.Ed.(Rusden) T.P.T.C.
G. H. Wright,
  B.A.(Melb.), A.C.T.T.
Mike E. Young,
  T.Tr.l.C.(SCVH)
Nelly Zola,
  B.A.(Melb.), Dip.Ed.(La Trobe)
STUDENT INSTRUCTOR
Damian Mountjoy

SUPPORT STAFF
Graeme Chandler,
Laboratory Assistant
Geoff Holland,
Technical Officer
Alan Johnston,
Technical Assistant
Linda Niere,
Laboratory Assistant (Physics)
Alan Rowlands,
Technical Assistant
Kate Shaw,
Laboratory Assistant (Biology, Environmental Sci., Chemistry)

STOREMEN
Roy F. Lawrence,
Senior Storeman
Pearce J. Walker,
Senior Storeman
Anthony Pagourelias
Bill W. Walsh
Ron J. Wright

MAINTENANCE
Ian J. Brien
Alex Sabo
Bob S. Tootell,
Fitter & Turner