CAULFIELD INSTITUTE OF TECHNOLOGY

TECHNICAL & FURTHER EDUCATION HAND BOOK 1981
CIT CAMPUS PLAN

Caulfield Institute of Technology
900 Dandenong Road,
Caulfield East, Vic. 3145
Telephone: 573 2222

The main CIT campus is located at 900 Dandenong Road and is adjacent to the Caulfield railway station which is on the Dandenong and Frankston lines. It is also on the No. 3 tram line from Swanston Street in the city (alight at the Caulfield East shopping centre). Private bus lines also serve the Institute (consult transport map).
Handbook 1981
Technical and Further Education

Caulfield Institute of Technology
Caulfield Institute of Technology

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

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INTRODUCTION

The history of CIT began in January of 1922 when the hopes and endeavours of the founder, Cr Frank Groves MLA, were realised by the opening of the Caulfield Technical School. Sited in a drill hall on Dandenong Road, the school featured a curriculum designed to train wheelwrights, blacksmiths, carpenters, and to help repatriate soldiers returned from World War I. The first principal, Mr R. J. Dorey, was a qualified blacksmith.

The school continued in a role oriented toward trade and apprenticeship through the next world war, and became the Caulfield Technical College in 1958. In 1965 it was affiliated as a college of advanced education with the Victoria Institute of Colleges and changed to its present name three years later. It then became an autonomous educational institute.

CIT has an advanced education division and a technical and further education (TAFE) division. The advanced education division has six schools:

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

CIT offers five levels of advanced education courses leading to recognised qualifications. These are bachelor degrees (four and three years full-time), 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 (two years full-time). Studies at all levels may be taken on a part-time basis.

The TAFE division consists of the following:

- School of Apprentice and Skill Training
  (Building Studies, Engineering and Metal Trades, Metal Fabrication and Welding)
- School of Industrial and Commercial Studies
  (Materials Technology, Electrical and Electronics, Mechanical Engineering, Communication Studies and Business Studies)
- School of Foundation and Preparatory Studies
  (Social Science, Humanities, Mathematics and Science)
- School of Community and Access Education
  (Compensatory Education, Access and Bridging Programs, Community Education — Short Courses and Industry Programs).

The main campus of CIT, which includes the advanced education division 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. Administrative offices of the TAFE division schools are located as follows:

- School of Apprentice and Skill Training — 1056 Dandenong Road, Carnegie;
- School of Community and Access Education — Flat 4, 6 Princes Avenue;
- School of Foundation and Preparatory Studies — Room D103I, main campus;
School of Industrial and Commercial Studies — 1068-1070 Dandenong Road, Carnegie.

The railway station nearest to the main campus is Caulfield and a tram service is provided by the Route 3, East Malvern/Darling Road line. The railway station nearest to the TAFE schools located at Carnegie is Carnegie.

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

HOW TO USE THE HANDBOOK

The information contained in this handbook is accurate as at August, 1980. Inevitably, changes will occur after publication so you should confirm details, such as references to required textbooks. You should also note that the Council reserves the right to amend, postpone, or withdraw any course or subject being conducted or offered by CIT.

The handbook is divided into three main sections:

Student Administration — this section includes information about enrolment, financial assistance available to students, scholarships and the regulations governing the relationship between CIT and its students. You should read the regulations, because they contain much information that can be to your benefit.

Courses Available — listed by type, i.e. middle level certificate courses, trade apprentice and technician courses, accredited vocational courses, preparatory and access programs, adult short courses. This section shows the structure, subjects available and other information specific to each course.

Subject Synopses — this section lists all subjects available for study, in alphabetic order. Each entry includes a synopsis of the subject, whether it has any prerequisites and, where the information is available, the textbooks required. Each subject is distinguished by a unique code. You should become accustomed to using these codes. When deciding on your course, you would be wise to refer to the synopses of the subjects you intend to study to ensure their contents are what you expect.

The other section of the handbook lists members of staff.

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

Telephone

The code number 573, shown with specific telephone numbers in the handbook, is omitted when making calls within the campus.
STUDENT ADMINISTRATION

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:
Mrs W. Adams, Student Administrative Services Officer
Dr R. Francis, Senior Lecturer, Applied Psychology.
Mr D. Maling, Senior Lecturer, Administrative and Secretarial Studies.

The following CIT staff are Commissioners for Affidavits:
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

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 advanced education 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 ID 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 ID 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 the beginning of the 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 starting 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 starting, 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 1981 have yet to be finalised. As a guide however, the following fees applied in 1980:

**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 (1980)
- Part-time Students $36 (1980)
- Apprentices $16 (1980)
- Special Courses for one semester $6 (1980)

**Late Fees (not applicable to some TAFE areas)**

Late fees are charged to those students permitted to enrol after the due date.
Other Fees

Replacement of ID 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 Withdrawals/Refund of Fees (above).

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

Some TAFE students are eligible for one of the following:
1. Adult Secondary Assistance Scheme
2. Secondary Education Assistance Scheme
3. Tertiary Education Assistance Scheme

Adult Secondary Assistance Scheme

Eligibility

A full-time TAFE student is normally eligible for the Adult Secondary Education Assistance if he/she is 19 years of age or over at 1 January 1981,
is an Australian citizen or permanent resident of Australia and satisfies the means test. Mature age HSC students must study four subjects to be eligible for the Adult Secondary Assistance Scheme.

Benefits

At the time this handbook went to print, details of the 1981 benefits were unavailable. The 1980 benefits were as follows:

All eligible students receive the Living Allowance and the Incidentals Allowance and some students are eligible for the extra grants. The maximum rates were as follows:

- **Dependent Student** — living at home: $1,250 pa ($24 per wk)
- **Dependent Student** — living away from home: $2,075 pa ($39.90 per wk)
- **Independent Student** — $2,348pa ($45.15 per wk)
- **Incidentals Allowance** — $30 maximum
- **Dependent Spouse Allowance** — $1,632.80 ($31.40 per wk)
- **Child Allowance** — $390 pa ($7.50 per wk)
- **Fares Allowance** — The cost of a single journey to and from home each year within Australia.

Means Test

If a student is dependent, the 1979/1980 income of the person/s supporting him/her is calculated. The student’s own income may also be taken into account. Tax etc., is deducted from the total income. In 1980, if the Adjusted Family Income was equal to or less than $9,400 the applicant received the maximum rate of living allowance. If the Adjusted Family Income was higher than $9,400, the allowance was reduced accordingly.

Applications

Students apply for ASEAS on enrolment day or soon after.

Secondary Education Assistance Scheme

Assistance for Low Income Families

Under the Secondary Allowances Scheme, the Commonwealth Government assists families with low incomes to keep their children at school for the final two years of secondary schooling.

**Benefits** (subject to certain conditions of eligibility).

At the time this handbook went to print, details regarding the 1981 benefits were unavailable. In 1980 they were as follows:

- up to $550 for each child studying full-time in Year 12 at a secondary school or technical college or through a State Education Department correspondence school.
- maximum payment where the Adjusted Family Income (see Means Test below) is $6,200 or less.
- some allowance payable on Adjusted Family Income up to $8,350.
In 1980, the Adjusted Family Income was the gross income of both parents for the period 1 July 1978 to 30 June 1979, less:

1. A deduction of $450 for each other dependent child who at 30 June 1979 was either under the age of 16 or between 16 and 25 and in full-time education;
2. Certain other deductions for expenses associated with earning the income (eg. union dues, equipment depreciation, cost of protective clothing).

Tertiary Education Assistance Scheme

Some TAFE students, eg. Business Studies — Office Training students and Certificate in Electronic Data Processing students receive TEAS providing they fulfill the requirements laid out below:

Eligibility

Students must be studying a full-time course, be an Australian citizen or permanent resident of Australia and satisfy the means test. Assistance is not available to students repeating a year of a course.

Benefits

At the time this handbook went to print, details about the benefits for 1981 were unavailable. In 1980 the benefits were as follows:

All eligible students receive the Living Allowance and the Incidentals Allowance and some students are eligible for the extra grants. The maximum rates are as follows:

- **Dependent Student** — living at home: $1,250 pa ($24 per wk)
- **Dependent Student** — living away from home: $2,075 pa ($39.90 per wk)
- **Independent Student** — $2,348 pa ($45.15 per wk)
- **Incidentals Allowance** — $30.00 maximum
- **Dependent Spouse Allowance** — $1,632.80 ($31.40 per wk)
- **Child Allowance** — $390 pa ($7.50 per wk)
- **Fares Allowance** — The cost of a single journey to and from home each year (within Australia).

Means Test

If a student is dependent, the 1979/1980 income of the person/s supporting him/her is calculated. The student’s own income may also be taken into account. Tax etc., is deducted from the total income. In 1980, if the Adjusted Family Income was equal to or less than $9,400 the applicant received the maximum rate of living allowance. If the Adjusted Family Income was higher than $9,400, the allowance was reduced accordingly.

For further information, contact:
The Commonwealth Department of Education,
450 St. Kilda Road,
Melbourne, Victoria 3004.
Ph. (03) 268 0444.
The text on the page is not legible due to the quality of the image. It appears to be a page from a legal or official document, possibly related to benefits or tax information. However, the content cannot be accurately transcribed from the image provided.
CIT COMMUNITY SERVICES

Community Services at CIT include the Careers and Employment Service, Counselling Services and the Student Union Community House. Specifically, Community Services aim to:

1. **Support** those who seek assistance in such areas as learning or teaching, coping with difficulties in personal/family life, financial assistance, housing, child care, religious dilemmas, vocational uncertainties, legal matters, medical problems and dental care.

2. Encourage CIT students and staff to **expand personal horizons** by offering group sessions, information, lectures on subjects such as contraception, first-aid, resuscitation techniques, job seeking skills, diet, effective study methods and improved family, social and work relationships as well as career planning.

A committee of the CIT Council (Community Services Committee), has been set up to make recommendations on the range, quality and types of services available, including the catering and dining facilities and services. The committee reviews and monitors services and also considers new initiatives in the light of the changing needs of students and staff. It meets at 5.30 pm on the second Thursday of each month. Meetings are open to all students and staff who wish to attend.

Services available to students and staff are confidential. All services are free except where otherwise indicated below.

**Careers and Employment Service**

Located in Rooms A201 and A215 on Level 2 of A Block (K. H. Boykett Building), telephone 573 2322.

The Careers and Employment Service is available to prospective students, enrolled students and graduates. It provides:

- general guidance and information about career choices, employment prospects and the career implications of various courses of study.
- assessment of abilities, skills and interests with a view to guiding career choice.
- assistance in finding casual, vacation, part-time and full-time employment. Campus interviews between employers and students are arranged as are career seminars and workshops on job-seeking skills such as interview and application techniques.

The service has a comprehensive careers information library to assist students continually in the clarification and assessment of both their career goals and choice of courses.

**Chaplaincy**

A chaplain is on campus part-time to assist people in coping with personal and religious problems and with social and moral issues. Various discussion groups are organised from time to time. Contact can be made at Student Union Community House, 9 Princes Ave, telephone 573 2500.

**Child Care**

People needing help with child care may wish to consider two options
available through CIT: the CIT Group Care Centre, and the Family Day Care Scheme.

The CIT Group Care Centre operates on campus from 8.30 am to 5 pm Monday to Friday. Care is available at the centre for the children of CIT students and staff as well as for the children of parents in the Caulfield community. The centre is located at 882 Dandenong Road, telephone 573 2366.

A Family Day Care Scheme is also available. The scheme is provided jointly by the Caulfield City Council and CIT and involves the provision of care for children in selected supervised private homes close to the Institute. For any child care inquiries or problems, call at Community House, 9 Princes Ave or telephone 573 2500.

Community House Facilities
Community House at 9 Princes Ave is a student-run area with the following facilities for both students and staff:

- quiet reading room, passive games room
- meeting room, quiet study room
- leisure and recreation courses
- kitchen and bathroom facilities
- housing noticeboard
- ‘wanted to sell and buy’ noticeboards
- food co-operative (see below).

If you have no specific problem but just want to meet other people, find friends or form an interest group drop in to Community House for a chat over a cup of coffee.

Counselling Services
The aim of Counselling Services is to provide a place where students and staff will feel free to come and discuss worries and concerns.

Psychologists, social workers and welfare officers are available to assist students, staff and their families in coping with difficulties in personal and/or family life, relationships with others or the general pressures of higher education. The emphasis is upon short-term support. Clients are given information and advice about what is available to them and options are discussed. The aim is to help people sort out their feelings about their situation, examine alternative courses of action and make and carry out decisions to their own satisfaction.

Services are completely free and confidential, and counsellors are available throughout the year including semester breaks. Appointments may be made at 7 Princes Ave, telephone 573 2500. Evening appointments are available on request.

The services also offer small group sessions centering on issues such as life-planning, personal growth and awareness. Apart from accepting the rule of confidentiality, each group decides its own objectives and way of working.

Dental Service
A dental service, wholly funded by the CIT Student Union, is located at 7
Princes Ave, (573 2500) and is presently available only to students who are charged a booking fee of $5. There is no charge for treatment. Evening sessions are available.

**Financial Advice and Information**

Students may obtain information about all financial grants such as TEAS, ASEAS, SSA and Social Security payments (benefits or pensions) from the Welfare (Rights/Support) Worker who is located in Community House, 9 Princes Ave (573 2500).

Information is also available in relation to student loans and budget planning.

It is best to discuss any financial problems with the Welfare Worker as schemes for helping students change from time to time.

**Food Co-operative**

A student-run food co-operative is located at Community House, 9 Princes Ave (573 2500).

The co-operative is open from noon - 2 pm Monday to Friday, and from 5 pm - 7 pm Monday to Thursday. It sells a wide selection of health foods such as dried fruits, nuts, cereals, honey and the like at cost price.

**Handicapped Access**

CIT is concerned to overcome any barriers (architectural, academic or personal) which may hamper any handicapped person. Contact with the Working Party on Handicapped Access may be made through the Welfare (Rights/Support) Worker at Community House (573 2500).

**Health Service**

The Health Service is responsible for health care education and the provision of a medical service to students and staff.

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.

Consultations with the doctors are charged but adjustments are made so that the vast majority of students are not out of pocket. Where resources are a problem no charge is made at all.

For appointments with either the nursing sisters or the doctors call at 7 Princes Ave or telephone 573 2500.

**Housing**

CIT does not have any on-campus accommodation. Details of accommodation close to campus is available and students are welcome to drop into Community House, 9 Princes Ave to look through the wide display of houses and flats to rent, hostel accommodation, houses and flats to share, part and full board and so on. Emergency accommodation can be arranged. Specialist advice is also available on rental agreements, tenant's rights and housing costs, as is support for students leaving home.
Legal Service

A community lawyer is available part-time to provide information and advice on legal matters, including tenancy agreements, hire purchase contracts, accidents and court appearances. Legal representation can also be arranged. The Community Lawyer may be contacted at Community House (573 2500).

Overseas Students

A welfare worker is available at Community House to assist migrant students in adjusting to life in a foreign country. Representation can be made on behalf of overseas students to relevant government departments in relation to visas and administrative requirements.

Good liaison also exists between CIT Community Services and the various community groups concerned with the welfare of overseas students. The welfare worker will make appropriate contacts on request (573 2500).

The CIT Overseas Students' Association (COSA) which runs an orientation program and various social and cultural activities also seeks to bridge any gaps between Australian and visiting students.

Part-time Students

As well as the pressures common to all students, part-timers often have additional stresses concerning their career, families and so on associated with their studies. After hours appointments for all services can be made on 573 2500.

Study Skills

Competent students and those experiencing difficulties can be helped to acquire more effective study methods and reading skills either by speaking with lecturers and tutors or by contacting the Counselling Services. From time to time the Counselling Services run small groups concerned with developing more effective study skills.

All services are completely confidential.

Further information about any Community Services is available from
Careers & Employment, Level 2, Boykett Building (A Block)
Community House, 9 Princes Avenue
Counselling Services, 7 Princes Avenue

Community Services at the TAFE Carnegie Campus

Community Services at Carnegie comprise branches of the Health Service and Counselling Services.

While all TAFE students are welcome to approach any of the Community Services on the main campus directly, it is suggested that they first contact relevant staff at Carnegie with whom they will probably have more regular and direct contact.

TAFE Health Service

Room 3.14 School of Industrial and Commercial Studies Building, 1068-74 Dandenong Road (extension 2011).
The TAFE Health Service has a nursing sister in attendance between 9 am and 5 pm Monday to Friday during term. The service is available free of charge to students and staff who may contact the sister during the hours above without appointment. A doctor is also available for one session a week and appointments may be made through the sister. Consultations with the doctor are charged for but adjustments are made to suit students’ pockets. Where resources are a problem, no charge is made at all.

If first-aid services are required outside of the above hours suitably trained staff are available and may be contacted through any of the teaching or library staff at the campus.

The Health Service provides —

- **Treatment Services** for any injury or illness.
- **Health Advice** eg. contraceptives, medication, fitness, diet, etc.
- **Health Education Services** — eg. classroom programs in first-aid and other health topics, health improvement and fitness programs, safety, etc.
- **Health Screenings** — individual testing and referral for such things as blood pressure, fitness, eyesight and hearing, pathology testing for illness.
- **Immunisations**.
- **An Industrial and Occupational Health and Safety Service** — maintaining and improving first-aid and safety equipment used by the departments in the School of Industrial and Commercial Studies, teaching safety procedures and correct use of safety equipment, and treatment of industrial and occupational injuries and illness.

While the Health Service at the Carnegie campus provides an essential treatment and referral service, its principal objectives are:

- to promote a positive approach to health rather than simply ‘treatment of illness’;
- to help people to take a more active and responsible part in their own health by promoting an understanding of basic emergency treatment, relevant health issues and the functioning of the body.

**TAFE Counselling Service**

Room 3.14 School of Industrial and Commercial Studies Building, 1068-74 Dandenong Road (extension 2088).

The TAFE Counselling Service is staffed by two part-time counsellors who may be contacted through the office in the School of Industrial and Commercial Studies building, Monday to Friday. This service is also available free of charge to all staff and students and the counsellors may be contacted for discussion at any time without appointment. As the counsellors at the TAFE service also work on the main campus they may be contacted there (on ext. 2500), if not available at the TAFE office.

**COMPUTER CENTRE**

The Computer Centre was established as a separate department in 1969. The first computer CIT installed was a Ferranti Sirius in 1963. A CDC 160A was installed in 1965, an ICL 1903A in 1969, the 1904A in 1970, DG C33O in 1978 and a dual Prime 750 system in 1979. The latter forms the principal
system for direct academic use in 1980 and 1981. The Centre C330 is at present used principally for administration data processing.

Hardware

**PRIME 750 System**
2 PRIME 750 CPU’s each with 1.5 MB store
2 System Consoles
2 300 MB disc drives and controllers
19 track MT drive and controller (800 bpi)
1 Unit record controller
1 285 cpm card reader
1 600 lpm line printer
4 x 16 line multiplexors
2 Primenet nodes

**D.G. Eclipse C 330**
2-96 MB disc drives and controllers
1-9 track and 1-7 track MT drive and controller (800 bpi)
600 cpm card reader
300 lpm line printer
1-16 and 2-8 line multiplexors

Software

**PRIME 750 System**
Includes Assembler, COBOL, FORMS (layout for i/o), SCREEN (screen handling for i/o), Interpreting BASIC, Compiling BASIC, FORTRAN IV, FORTRAN 77, DBMS, PL/1, PASCAL, PRIMENET (network hardware/software for linking local and remote processors and terminals).

**D.G. Eclipse C330**
Operating System Data General Commercial AOS; multi-programming, multi-access, timesharing.
Includes COBOL, FORTRAN, BASIC, Assembler and INFOS.

User Services

Data preparation services are provided, together with key punches for self-service operation (F504, F507).

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

A user advisory service for students and staff is available during the duty programmer hours — see the notice on the Duty Programmer Room door (F505). Master copies of manuals are held there.

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, E212 and other rooms within various departments throughout the campus.

**Further information**

One copy of the Computer Centre Users' Handbook is issued 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.

**EDUCATION DEVELOPMENT UNIT**

The Educational Development Unit (EDU) 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.

**Advisory Services**

The EDU aims to advise members of staff on teaching methods and assessment, including the application of educational media. As part of this service, a range of publications dealing with aspects of teaching and learning is available. Materials designed to assist students to improve their study skills have been developed. The EDU makes recommendations on the use of educational technology, including appropriate equipment standards.

**Media Services**

Current services are:

- photographic copying
- video recording/copying
- audio recording/copying
- film to video transfers.

Users are asked to note that these services are provided subject to copyright restrictions.

**Media production**

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
- synchronised sound-slide programs

Departments are charged cost of materials only for all productions and services.

**In-service education**

The EDU conducts workshops and seminars on educational topics with the
aim of improving teaching effectiveness. Training programs are provided in the use of audio visual equipment, including a 16mm projectionist course which is offered several times a year. An annual staff development conference is held, usually in conjunction with other colleges.

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, corner of Queens Avenue. Telephone inquiries may be made on either ext. 2376 or 2323.

THE LIBRARY

The CIT Library’s principal aim is to serve the learning needs of both staff and students at the Institute. As well as the main campus library, there is a branch library located at the TAFE Division, Carnegie. The selection of resources to expand the Library’s collections 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.

The library’s resources are divided into four main sections.

The Reference Collection includes materials such as dictionaries, encyclopaedias, handbooks, bibliographies, atlases, Acts of Parliament, periodical indexes and abstracts. This collection is located on Level 3, and because of its nature and the need for it to be available for immediate consultation, it is not available for loan.

The Periodical Collection is located on Level 3. Most of the 2,800 periodical titles are available for loan and many backruns of titles are held on microfilm. 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 67,000 book titles. Allowing for additional copies and audio visual items, the total collection is 105,000 items.

The Carnegie Branch Library collection supports courses within the School of Industrial and Commercial Studies, the School of Apprentice and Skill Training and some courses from the School of Foundation and Preparatory Studies. Although located at the TAFE Division, this collection can be used by all CIT staff and students.

Since 1979, an on-line computer based information retrieval service has been available. Called CITSEARCH, this facility has been well used since its introduction, by both academic staff and final year students.

There are two major points of contact between users and library staff.

The INQUIRIES desk handles loans of audiovisual equipment, bookings for films and helps users with microfiche and microfilm equipment. It also co-ordinates bookings for seminar rooms and discussion rooms within the library.

The ASK ME desk is a reference desk and is staffed by people who are
specialists in providing people with information and in helping users to become skilled in retrieving information for themselves. This individual assistance is supplementary to the formal reader education programs which are conducted in co-operation with academic departments. These reader education programs reach all first year and final year students as well as other groups, as required.

The Carnegie Branch Library

This 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 the teaching areas at Carnegie. 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 Branch Library features an integrated collection of approximately 5,000 books, 100 periodical titles, and 250 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

All students are automatically members of the Student Union through payment of their General Service Fee upon enrolment.

The Student Union Council is the democratically elected Executive of the Student Union and exists as an autonomous body within the CIT community.

It is elected annually and is the only representative body of the students.

The Student Union Council communicates with students on its activities through the campus newspaper The Naked Wasp, in general meetings, regular referendums on policy changes and surveys on the provision of facilities and services. The Student Union Council is made up of an executive and a number of standing committees which deal with a range of issues concerning students' academic and non-academic interests (see p. 22).

The structure of the Student Union Council is regularly under review but generally covers most students' interests during their stay at CIT. Areas of interest include welfare, sport, recreation, education, and political and cultural issues.
Through the Council the Student Union provides a number of services and facilities to students. These include:

- a dental service*
- student loans*
- personal accident insurance
- discount air fares
- *The Naked Wasp* campus newspaper
- *Input* weekly newsheet on campus events
- 3CT on-campus radio station
- a minibus, a removal van and a car
- a photocopying service
- an AUS information service
- noticeboards
- student diaries
- a subsidised Student Union canteen
- a food co-operative*
- rooms and facilities for work and leisure, including Community House* and a campsite at Lang Lang
- over 50 clubs and societies, with social and sports events throughout the year.

One of the most important functions of the Student Union Council is to represent students' interests on various academic and administrative boards and committees of the Institute as well as the broader community.

The Student Union Council provides interest and a worthwhile involvement for students. The general office of the Student Union building, on the corner of Queens Avenue and Dandenong Road, can assist with any inquiries and has information pamphlets available (telephone 573 2525).

*See also under Community Services.
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 timetable 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.

4.5.1.4 After the official publication of results, a candidate is permitted to see his examination script at the Institute.

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:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD</td>
<td>High Distinction</td>
</tr>
<tr>
<td>D</td>
<td>Distinction</td>
</tr>
<tr>
<td>C</td>
<td>Credit</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
</tr>
<tr>
<td>PP</td>
<td>Pass (Lower Standard)</td>
</tr>
<tr>
<td>X</td>
<td>Assessment Deferred</td>
</tr>
<tr>
<td>NA</td>
<td>Not finally assessed. Subject being examined over more than one semester</td>
</tr>
<tr>
<td>E</td>
<td>Exempt</td>
</tr>
<tr>
<td>N</td>
<td>Fail Assessment Deferred</td>
</tr>
<tr>
<td>WN</td>
<td>Fail—Withdrawn without permission</td>
</tr>
</tbody>
</table>

For examinations conducted by the Department of Education:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Pass Credit</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
</tr>
<tr>
<td>S</td>
<td>Supplementary</td>
</tr>
<tr>
<td>N</td>
<td>Fail</td>
</tr>
</tbody>
</table>

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, or knowingly assisting another person to do so;

(f) divulging any confidential information concerning any Institute matter;
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 from time to time nominate a Deputy Director as Chairman of the Committee. The Director shall from time to time designate one of the Deans as the alternative who will, in the absence of the Chairman, act in his stead.

7.2.3 For any hearing, the other two academic members of the Committee shall be chosen by the Chairman from a panel of members of academic staff selected one from each school by the Chairman in consultation with the Director and the respective Deans. Members of the panel shall be appointed for a term of two years and shall be eligible for re-appointment.

7.2.4 The Secretary shall be the Academic Registrar or a member of his staff nominated by him;

7.2.5 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 Dean, 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 Dean 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 results, 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 Summary Penalty — Failure in a Subject
7.4.2.1 For misconduct related to assessment in a subject, the appropriate Head of Department may grade the student as having failed in that subject.

7.4.2.2 If a summary penalty is to be imposed, seven days
notice in writing of that intention must be given to the student, with a copy of this notice forwarded to the Academic Registrar. If no objection is lodged within the seven days the Head of Department will advise the Academic Registrar who will formally notify the student of the failure in the subject.

7.4.2.3 A student against whom a notice of summary penalty has been issued has the right of representation to the Head of Department and the right to require that the matter be referred to the Academic Registrar.

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 Deans and Heads of Departments

7.4.4.1 A Dean 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.

7.4.5 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.

7.5 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.
REGULATION 8 - WAIVING OF REGULATED FEES

When a student successfully appeals the decision of the Academic Appeal Committee, the result of the appeal shall be so notified to the student by letter. Provided that the student has paid the regulated fee in full within 14 days from the date of the notification of the result of the appeal, the fee shall be refunded to the student.

7.1 An appeal against any decision shall be made within 14 days from the date notified of the decision. Any appeal against a decision shall be in writing to the Director of the Academic Appeal Committee. The decision of the appeal shall be final.

7.2.1 Any student who is the subject of an appeal shall be notified in writing of the decision. Any student shall within 14 days from the date of the notification of the decision of the appeal shall be in writing to the Director of the Academic Appeal Committee. The decision of the appeal shall be final.

7.2.2 Any student who is the subject of an appeal shall be notified in writing of the decision. Any student shall within 14 days from the date of the notification of the decision of the appeal shall be in writing to the Director of the Academic Appeal Committee. The decision of the appeal shall be final.

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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.

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<th>Category 1</th>
<th>Code</th>
<th>Subject</th>
<th>Unit Value</th>
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<tr>
<td></td>
<td>CM12</td>
<td>Ceramic Calculations 1</td>
<td>1</td>
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<tr>
<td></td>
<td>CM22</td>
<td>Ceramic Calculations 2A</td>
<td>1</td>
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<td>CM23</td>
<td>Ceramic Calculations 2B</td>
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<td>CT11</td>
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<td>Ceramic Technology 2</td>
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<td></td>
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CC12 Communication & Report Writing IB 1
CM11 Computations 1
CX11 Laboratory Techniques 1

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<td>Concrete Technology 1</td>
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</tr>
<tr>
<td>CF31</td>
<td>Concrete Technology 2A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CF32</td>
<td>Concrete Technology 2B</td>
<td>1</td>
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</tr>
<tr>
<td>CG21</td>
<td>Glass Technology 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CG31</td>
<td>Glass Technology 2</td>
<td>1</td>
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</tr>
<tr>
<td>CT13</td>
<td>Plastic Technology 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CD31</td>
<td>Interpretation of Technical Drawings &amp; Sketches</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CX34</td>
<td>Mould Making (Ceramics)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CT23</td>
<td>Plastic Technology 2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CQ11</td>
<td>Principles of Plant Operation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CQ31</td>
<td>Quality Control</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CT24</td>
<td>Refractory &amp; Insulator Technology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CM21</td>
<td>Statistics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>XV41</td>
<td>Supervision 1A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>XV42</td>
<td>Supervision 1B</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CX25</td>
<td>Instrumentation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CX33</td>
<td>Work Project</td>
<td>Up to 4</td>
<td></td>
</tr>
</tbody>
</table>

CERTIFICATE OF APPLIED SCIENCE (Construction Materials and Practice)  Course Code: HM

A middle level course that has been planned by a representative group of employers assisted by officers of the Education Department. It has a strong geomechanics base and includes study in the fields of highway construction, concrete and concrete products, and soils.

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

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

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

**Course Details**
The course can be offered in two modes: part-time — four years’ duration involving one half day and one evening per week; or, semi full-time — one year full-time study during which half the course is completed. The remainder is completed part-time while the student is employed in a related area of work.

<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>
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<tr>
<td></td>
<td>CM11</td>
<td>Computations</td>
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<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>
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</tr>
<tr>
<td></td>
<td>CS13</td>
<td>Materials Science 1</td>
<td>1</td>
</tr>
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<td></td>
<td>CS23</td>
<td>Materials Science 2</td>
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<td>CH21</td>
<td>Materials Technology</td>
<td>1</td>
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<td></td>
<td>CX14</td>
<td>Materials Testing Techniques 1</td>
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<td>CX24</td>
<td>Materials Testing Techniques 2</td>
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<tr>
<td></td>
<td>CT14</td>
<td>Principles of Plant Operations (Materials)</td>
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<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>
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<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>
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<table>
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<tbody>
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<td>CN11</td>
<td>Bituminous Materials 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CN21</td>
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<td></td>
<td>CF31</td>
<td>Concrete Technology 2A</td>
<td>1</td>
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<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>
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<td></td>
<td>CQ31</td>
<td>Quality Control</td>
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<td></td>
<td>CT13</td>
<td>Plastics Technology 1</td>
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<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>
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<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 with problem identification and solving an important characteristic.

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

Entrance Prerequisites
The prerequisites for admission to a course are either:

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

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

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

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

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

a. 30 units; and

b. a minimum of two years relevant industrial experience

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

CERTIFICATE OF TECHNOLOGY
(Electrical & Electronics)

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

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

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

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

Part-time Classes

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

Course Formats

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

CERTIFICATE OF TECHNOLOGY (Electrical)  
Course Code: HE

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

<table>
<thead>
<tr>
<th>Level</th>
<th>Core Subjects</th>
<th>Electives (minimum 13 units)</th>
<th>General (maximum four units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(compulsory)</td>
<td>Specialist (at least eight units at C or D level, four of which must be at D level)</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Applied Electricity 1H</td>
<td>Applied Mechanics 1H</td>
<td>Applied Heat 1H</td>
</tr>
<tr>
<td></td>
<td>Communication &amp; Report Writing</td>
<td></td>
<td>Computer Studies 1H</td>
</tr>
<tr>
<td></td>
<td>Electrical Drafting Principles 1H</td>
<td></td>
<td>Physics 1H</td>
</tr>
<tr>
<td>OR</td>
<td>Mechanical Drafting 1H*</td>
<td></td>
<td>Properties of Materials 1H</td>
</tr>
<tr>
<td></td>
<td>Electronics 1H</td>
<td></td>
<td>Wiring and Assembly</td>
</tr>
<tr>
<td></td>
<td>Mathematics 1E</td>
<td></td>
<td>Methods 1H</td>
</tr>
<tr>
<td>Level</td>
<td>Core Subjects</td>
<td>Electives (minimum 15 units)</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------------</td>
<td>------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(compulsory)</td>
<td>Specialist (at least eight units at C or D level, four of which must be at D level)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(15 units)</td>
<td>General (maximum four units)</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Circuit Theory 1H</td>
<td>Electronic Drafting Principles 1H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication &amp; Report Writing</td>
<td>Wiring and Assembly Methods 1H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronics 1H</td>
<td>Computer Studies 1H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics 1E</td>
<td>Electronic Circuits 1H</td>
<td></td>
</tr>
</tbody>
</table>

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

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

Further information on full-time programs available will be given upon application.
All subjects have a unit value of two units except for Electronics 1H, Circuit Theory 3A and 3B and Pulse Electronics 1 which are worth one unit each. Further information on full-time programs available will be given upon application.

**SUBJECTS**

In alphabetical order

<table>
<thead>
<tr>
<th>Subject</th>
<th>Taught over one Semester</th>
<th>Taught over whole year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subject Code</td>
<td>Full Time</td>
</tr>
<tr>
<td>Applied Electricity 1H</td>
<td>XE11</td>
<td>7</td>
</tr>
<tr>
<td>Applied electricity 2H</td>
<td>XE21</td>
<td>7</td>
</tr>
<tr>
<td>Circuit Theory 1H</td>
<td>LT11</td>
<td>7</td>
</tr>
<tr>
<td>Circuit Theory 2H</td>
<td>LT21</td>
<td>7</td>
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<td>Circuit Theory 3H</td>
<td>LT31</td>
<td>7</td>
</tr>
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<td>Communication &amp; Report Writing</td>
<td>XC11</td>
<td>4</td>
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<tr>
<td>Communication Measurements 1H</td>
<td>LM41</td>
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<td>Communication Techniques 1H</td>
<td>LX41</td>
<td>9</td>
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<tr>
<td>Computer Studies 1H</td>
<td>XG11</td>
<td>4</td>
</tr>
<tr>
<td>Digital Electronics 1</td>
<td>XX11</td>
<td>5</td>
</tr>
</tbody>
</table>
CERTIFICATE OF TECHNOLOGY (Mechanical & Mechanical Design Drafting)

Courses Available
The Mechanical Engineering Department of the School of Industrial and Commercial Studies offers two certificates:
1. Certificate of Technology — Mechanical
2. Certificate of Technology — Mechanical Design Drafting.

The latter certificate is a specialised course and so all units are compulsory, the former having basic core subjects with electives offered in the final stages. The courses are offered in four stages.

Students passing the first two stages of the course are eligible to proceed to a degree or diploma at the School of Engineering in the Advanced Education Division of CIT.

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

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

**Part-time Courses**

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

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

**CERTIFICATE OF TECHNOLOGY (Mechanical) Course Code: HH**

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

<table>
<thead>
<tr>
<th>Stage</th>
<th>Subject</th>
<th>Subject code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &amp; 2</td>
<td>Communication and Report Writing</td>
<td>XC18</td>
<td>2 full-time; 2 part-time</td>
</tr>
<tr>
<td></td>
<td>Applied Electricity 1H</td>
<td>XE18</td>
<td>3 full-time; 3 part-time</td>
</tr>
<tr>
<td></td>
<td>Physics 1H</td>
<td>XP18</td>
<td>2 full-time; 2 part-time</td>
</tr>
<tr>
<td></td>
<td>Materials and Processes 1H</td>
<td>XA28</td>
<td>2 full-time; 2 part-time</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 1H</td>
<td>LH18</td>
<td>5 full-time; 2 part-time</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drafting 1H</td>
<td>LA18</td>
<td>6 full-time; 3 part-time</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 2H</td>
<td>LH28</td>
<td>6 full-time; 3 part-time</td>
</tr>
<tr>
<td></td>
<td>Mathematics 2H</td>
<td>XM28</td>
<td>5 full-time; 2 part-time</td>
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<td></td>
<td>Mechanical Drafting 2AK</td>
<td>LB28</td>
<td>6 full-time; 3 part-time</td>
</tr>
<tr>
<td>3 &amp; 4</td>
<td>Applied Heat 1H</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics 3H</td>
<td>—</td>
<td>3</td>
</tr>
</tbody>
</table>

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

- 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>
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<tbody>
<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 &amp; 2</td>
<td>Communication and Report Writing</td>
<td>XC18</td>
<td>2</td>
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<td>Applied Electricity 1H</td>
<td>XE18</td>
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<td>Physics 1H</td>
<td>XP18</td>
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<td></td>
<td>Materials and Processes 1H</td>
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<td>Mechanical Drafting 1H</td>
<td>LA11</td>
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<td>Mathematics 2H</td>
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<tr>
<td>2H</td>
<td>Mechanical Drafting</td>
<td>LA21</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Applied Heat 1H</td>
<td>LG38</td>
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<td>LH38</td>
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<tr>
<td></td>
<td>Mechanical Design 1H</td>
<td>LA38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Fluid Power</td>
<td>LF48</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>alternatives</td>
<td></td>
<td></td>
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<td></td>
<td>Applied Heat 2H</td>
<td>LG48</td>
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</tr>
<tr>
<td></td>
<td>Mechanical Design 2H</td>
<td>LA48</td>
<td></td>
</tr>
</tbody>
</table>

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SUBJECT SYNOPSES

Applied Electricity 1H XE11 (semester) XE18 (whole year)
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 (semester) XE28 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Mathematics 1E, Applied Electricity 1H. This subject must be studied concurrently with Mathematics 2E.
Syllabus: AC fundamentals, complex notation in electrical circuits, further network theorems, resonance circuits, polyphase systems, circuit transients, complex waveform analysis, AC meters, machines.
Assessment: Final three hour external examination 70% and internal tests 30%.
References:

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:

Applied Heat 1H LG31 (semester) LG38 (whole year)
Prerequisite: Nil.
Syllabus: Temperature scales, linear and volumetric expansion and

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:

Reference:

Applied Mechanics 1H LH11 (semester) LH18 (whole year)

Prerequisites: Nil.

Syllabus: Resolution of forces, moments and couples, principles of equilibrium, solution of framework by graphical and analytical methods, linear and angular motion, work and energy, loading of beams, 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 (semester) LH28 (whole year)**

*Prerequisites:* Mechanics 1A and 1B.


*Assessment:* Cumulative by assignment and practical work.

*Reference:* As for Applied Mechanics 1H.

**Applied Mechanics 3H LH31 (semester) LH38 (whole year)**

*Prerequisite:* Applied Mechanics 2H.

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

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

*References:*


**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.
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.

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.


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:

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 test(s) and assignment(s) and laboratory reports.
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, 10th ed., Whitcombe & Tombs, 1968.

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.

Reference: 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.

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.

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 (semester) LT18 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Syllabus: Units, network theorems, magnetism, AC fundamentals, instruments, electromagnetism, electrostatics, rotating machinery.

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

References:

Circuit Theory 2H LT21 (semester) LT28 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisites: Circuit Theory 1H, Mathematics 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:

Circuit Theory 3H LT31 (semester) LT38 (whole year)
A course of lectures for six hours per week for one semester, or three hours per week for one year.

Prerequisites: Circuit Theory 2H, Mathematics 2E.

Syllabus: 2-port networks, complex circuits, insertion power ratio, modern passive filter analysis, active filters, transfer functions, transmission lines, terminated lines, Smith charting of lines.

Assessment: Final three hour external examination 70% 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:

Communication Measurements 1H LM41 (semester) LM48 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Mathematics 3E, Circuit Theory 3H, Electronics 3H.
Syllabus: Practical meters, bridges and their applications, signal generators, CRO, time domain reflectometers, digital equipment, audio testing, group delay meters, system testing.
Assessment: Final three hour external examination 50 per cent and internal tests 50 per cent.
Reference: To be advised.

Communication Techniques 1H LX41 (semester) LX48 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisites: Circuit Theory 3H, Electronics 3H, 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 (semester) XG18 (whole year)
A course of lectures for four hours per week for one semester or two hours per week for one year.
Prerequisite: This subject must be studied concurrently with Mathematics 1H, or higher.
Syllabus: Computer mathematics, computer description — hardware, software, languages (machine, assembler, computer), BASIC language programming.

Assessment: Assessments and one examination.

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:

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.


**Digital Electronics 1H XW11 (semester), XW18 (whole year)**

A course of lectures and practical exercises for four hours per week for one semester. Full-time students have an additional two hour tutorial.

*Prerequisites:* Electronics 1H, Circuit Theory 1H.

*Syllabus:* Development of digital electronics, Boolean Algebra, Number systems and codes, logic families, MSI devices, semiconductor memory I.C.s, displays.

*Assessment:* Internal progressive tests — 30 per cent.

External written examination — 30 per cent.

External practical examination — 20 per cent.

*References:* TOCCI, R. J., *Digital Systems*.


HILL & PETERSON, *Introduction to Switching Theory and Logic Design*.

BELL, *Solid State Circuits*.

**Digital Electronics 2 XX21 (semester) XX28 (whole year)**

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

*Prerequisites:* Digital Electronics 1, Electronics 3H, Pulse Electronics 1.

*Syllabus:* Realisation of Boolean Functions, MSI devices, Synchronous and Asynchronous Sequential Circuits, Counters, ROM's, Advanced Logic Circuits, Data Communications, Measuring Devices, Conversion between analog and digital, Data Domain Servicing.

*Assessment:* 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.


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 (semester) LD18 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.

Prerequisites: Electrical Drafting Principles 2H, Applied Electricity 2H. This subject must be studied concurrently with 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 (semester) LD28 (whole year)
A course of lectures for eight hours per week for one semester, or four hours per week for one year.

Prerequisites: Electrical Design 1H, Electrical Machines 1H, Electronics 2H (power) or equivalent.

Syllabus: Elements of Design, Heating and Cooling. Temperature measurement and control, motor drive systems, control circuit design, magnetic circuit design, building services.

Assessment: Internal 50 per cent: three hour examination, projects, assignments and/or practical work. External 50 per cent: three hour examination which tests the total syllabus. Students must pass the external examination to pass the subject.

References:
Electrical Drafting Principles 1H LE12 (semester) LE19 (whole year)
A course of lectures for four hours per week for one semester, or two hours per week for one year.
Syllabus: Drafting fundamentals, civil drafting principles, mechanical drafting principles, electrical drafting wiring diagram, schematics, printed circuit production.
Assessment: Projects.

Electrical Drafting 2H XD21 (semester) XD28 (whole year)
A course of five hours per week for one semester or two hours per week for one year. Additional assignment, work in own time.
Prerequisite: Mechanical Drafting 1H or Electrical Drafting Principles 1H.
Assessment: Final three hour external examination 70 per cent. Internal tests and projects 30 per cent.
References: Australian Standard Electrical Symbols AS1100.

Electrical Machines 1H XE31 (semester) XE38 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisite: Applied Electricity 2H.
Syllabus: Machine operating principles, rotating machines — winding, currents and EMF’s, DC machines, transformers, 3-phase induction machines, 1-phase induction machines, 1-phase motors, synchronous machines.
Assessment: Final three hour external examination 70 per cent and internal tests 30 per cent.
Reference: JURIK, Electrical Machines for Engineering Technicians, Longmans.

Electrical Measurements XZ41 (semester) XZ48 (whole year)
A course of lectures for seven hours per week for one semester, or three hours per week for one year.
Prerequisite: Applied Electricity 2H.
Syllabus: 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.

Electrical Power Systems XP48
A course of three hours per week for one year.

Prerequisite: Electrical Machines 1H.


Assessment:
Final three hour external examination 50 per cent
Internal Tests 30 per cent
Practical work and/or thesis 20 per cent.

Reference:

Electronic Drafting Principles 1H LE11 (semester) LE18 (whole year)
A course of lectures for four hours per week for one semester, or two hours per week for one year.

Prerequisites: Circuit Theory 1H, Electronics 1H.

Syllabus: 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 (semester) LL18 (whole year)
A course of lectures and practical sessions for four hours per week for one semester, or two hours per week for one year.

Syllabus: Investigation of passive and active circuit elements with emphasis on equipment usage. Study of active bias circuits and amplification principles.

Assessment: Practical and theory examinations.

Reference:
BOYLESTEAD & NASHELSKY, Electronic Devices and Circuit Theory.

Electronics 2H LL21 (semester) LL28 (whole year)
A course of lectures and practical sessions for six hours per week for one semester, or three hours per week for one year.

Syllabus: Semi-conductor diode applications, amplifying circuits, basic frequency response of active circuits, negative feedback principles, cascaded amplifiers, logic and timing circuits, power supplies and control circuit devices.

Assessment: Final three hour external examination 70 per cent and internal assessment tests 30 per cent.
References:
BOYLESTEAD & NASHELSKY, *Electronic Devices and Circuit Theory*.  
CIROVIC, *Basic Electronics Devices, Circuits and Systems*.

**Electronics 3H LL31 (semester) LL38 (whole year)**
A course of lectures for seven hours per week for one semester, or three hours per week for one year.  
**Prerequisites:** Circuit Theory 2H, Electronics 2H.  
**Syllabus:** AC waveforms, verifying circuits, power dissipation, classes of amplifiers, frequency response and amplifier performance limitations, open and closed feedback loops, stability, multi-stage feedback, DC amplifiers, differential amplifiers, operational amplifiers, transistor switching and logic circuits.  
**Assessment:** Final three hour external examination 70 per cent and internal tests 30 per cent.  
**Reference:** To be advised.

**Electronics 3H (Power) XF31 (semester) XF38 (whole year)**
A course of lectures for six hours per week for one semester, or three hours per week for one year.  
**Prerequisite:** Electronics 2H (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 per cent and internal tests 30 per cent.  
**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 1.

Syllabus: Glass history, glass-forming oxides, glass composition, glass formation, melting systems, forcing processes, physical properties, batching and preparation, principles of furnace control, interpretation of quality and furnace performance.

Assessment: By progressive written tests and assignments.

References: To be announced.

Glass Technology 2 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:
COUNTRY ROADS BOARD, VICTORIA, Drafting Manual, CRB, 1968.

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.

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.

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.

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.


Mathematics 1H XM11 (semester) XM18 (whole year)
A course of five hours per week for one semester, or two hours per week for one year.

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.


Mathematics 2H XM21 (semester) XM28 (whole year)
A course of five hours per week for one semester, or two hours per week for one year.

Prerequisite: Mathematics 1H.

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

References: To be announced.

Mathematics 1E XT11 (semester) XT18 (whole year)
A course of lectures for five hours per week for one semester, or two hours per week for one year.

Prerequisite: Year 11 Mathematics.

Syllabus: Number systems, especially to the base 2, 8, 16 . . ., logarithms and algebra, solution of simple linear equations, general trigonometric functions, introduction to differentiation, Boolean algebra including logic simplifications, computer members.

Assessment: By unit and final examination.

Reference: To be advised.

Mathematics 2E XT21 (semester) XT28 (whole year)
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.

**Measurement Instruments LS41 (semester) LS48 (whole year)**
A course of lectures for seven hours per week for one semester, or three hours per week for one year.

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


*Assessments:* Final three hour external examination 50 per cent. Internal tests and practical assignments 50 per cent.


**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.


**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.

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:

Microprocessor Applications XY21 (semester) XY28 (whole year)
A course of lectures for seven hours per week for one semester or three hours per week for one year.
Prerequisites: Digital Electronics I, Pulse Electronics I A, Microprocessor fundamentals.
Syllabus: Keyboards, Dot Matrix Printers, Raster-scan displays, Teleprinter Mass Storage, Communications, Analog Interfacing, Bus Structures, Control.
Assessment: Final external examination, 50 per cent; progressive internal examination and student projects, 50 per cent.

Microprocessor Fundamentals XY11 (semester) XY18 (whole year)
A course of lectures and practical exercises for four hours per week for one semester part-time and six hours per week for one semester full-time.
Prerequisite: Digital Electronics I or equivalent.
Syllabus: Microcomputer terminology, methods of programming, addressing, binary arithmetic, minimal systems, interfacing I/o, interrupts, timing and speed, direct memory access, diagnostics, programming aids, use of development systems.
Assessment: Final external examination, 50 per cent; progressive internal examination and student projects, 50 per cent.
References:
Motorola 6800 microcomputer system data
or
Intel 8085 users manual
and

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.
Reference:

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

**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 (semester) XP18 (whole year)**
A course of lectures for five hours per week for one semester, or two hours per week for one year.

*Syllabus:*
(a) Topics common to electrical and mechanical students: units, fundamental quantities, vectors, momentum and impulse, work energy and power, friction, linear and angular motion, vibratory motion, centripetal force, temperature and heat; thermal expansion.
(b) Specialised topics for Electrical and Electronics students: rotational dynamics, statics, heat transfer, wave motion and sound, reflection, refraction and spectra, photometry, electrostatics, electric circuits, magnetic field and force, applied electron motion, electronics.
(c) Specialised topics for Mechanical Students: rotational dynamics, fluid statics, fluid flow, thermometry and pyrometry, electricity, structure of matter, wave motion and sound and sound properties or reflection, refraction and lenses or basic chemistry.

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

*References:*

**Plastics Technology 1 CT13**
A course of two hours per week for one semester.

*Prerequisites:* Materials Science I or Ceramic Science I.

*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 sub-contracting. Automation, plant replacement. Maintenance procedures, dust control, recycle procedures, pollution. Handling Equipment.

Assessment: Assignment work.

References:
PEMBERTON, A. W., Plant Layout and Materials Handling, Macmillan, with the Association of Works Managers, 1974.

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, Macmillan, with the Association of Works Managers, 1974.


Properties of Materials 1H XL21 (semester) XL28 (whole year)

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

Syllabus: Micro- and macrometallography, ferrous alloys, non-ferrous metals and alloys, testing metals, metal working and jointing methods, electrical apparatus materials; vacuum impregnation, varnishing, encapsulation testing, insulating materials, corrosion.

Assessment: By examination and projects.

References: To be advised.

Pulse Electronics 1 (XX11)

A course of lectures and practical exercises for three hours per week for one semester.

Prerequisites: Circuit Theory 2H, Mathematics 2E, Electronics 2H.
Syllabus: Linear waveshaping, compensated attenuators, damping, clipping, clamping, active switches and propagation times, loading of active switches, transistor high speed switching circuits, UJT, SCR, integrated circuit pulse devices.

Assessment: Final external examination, 70 per cent; progressive internal examination, 30 per cent.


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.


Refractory and 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.

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.
References:

**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.
*Prescribed texts:*

**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:*

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:

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:

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 and Assembly Methods 1H LW12 (semester)
LW19 (whole year)
A course of lectures for four hours per week for one semester, or two hours per week for one year.

Syllabus: Bench work using general machine tools, forming materials, soldering and assembly methods, workshop practices (lathe work), production of printed circuits.

Work Project CX33
To be arranged with the lecturer.
Trade Apprenticeship

Trade Apprenticeship Courses

Standard of Admission
Although the minimum educational qualification for most apprenticeship trades is the satisfactory completion of Year 9, 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 Year 11. 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 Year 10 or better may be permitted to begin a technicians' 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 and second year of this course is offered by the School of Apprentice and Skill Training. This includes the Boilermaking Modules 1 to 8 and Welding Modules 9 to 16 inclusive. Apprentices attend one full day of eight hours per week for their first and second year. Additional welding subjects may be taken by apprentices on a part-time evening basis.

Module Number and Code — Subjects

First Year

Boilermaking Module 1 BM01
Trade processes, welding processes, general safety, electric welding, marking off principles and fabrications.
Boilermaking Module 2 BM02
   General safety, electric welding, grinding, oxy-acetylene cutting, straightening and levelling, joining rolled S.S.

Boilermaking Module 3 BM03
   Electric welding, S.A.A. codes, oxy-acetylene processes, trade materials, oxy-acetylene welding, toolmaking.

Boilermaking Module 4 BM04
   Electric welding, operational safety, confined spaces, toxic fumes, fabrication procedures, rolling procedures.

Boilermaking Module 5 BM05
   Distortion, containers, volumes, capacities, related maths, fabrication procedures (pipelines).

Boilermaking Module 6 BM06
   Defects in welding, related maths, electric welding, toolmaking.

Boilermaking Module 7 BM07
   Related drawing, reading blueprints, material list, other basic drawing related to the trades (basic).

Boilermaking Module 8 BM08
   Related blueprint reading, material list, other basic drawing related to trade (basic).

Module Number and 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 elec-
trodes, 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 blueprints, material list, other basic drawing related to the trade.

**Welding Module 16 WM16**
Related blueprint reading, material list, detail drawing, technical sketching, other basic drawing related to the trade.

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**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 Year 10 or Year 11 students, although a student may start at Module 5 if a satisfactory result is obtained from a placement test.

Craft Examination (Fitting & Machining Module 20):

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

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Section 2 — Practice

One examination, of five and a half 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 Number 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 TN45
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.

Technician Courses

BUILDING (Building Foreman) Course Code: TB

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

Entrance Standards
The successful completion of the following Year 10 subjects: English, mathematics, science; or approved equivalent qualifications, provided that any person who is otherwise eligible may be admitted to a course if 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>
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<tbody>
<tr>
<td>BL58</td>
<td>Building Administration and Supervision</td>
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<tr>
<td>BP22</td>
<td>Building Construction 1A</td>
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<tr>
<td>BP23</td>
<td>Building Construction 1B</td>
<td>2</td>
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<tr>
<td>BP32</td>
<td>Building Construction 2A</td>
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<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>
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<tr>
<td>BY41</td>
<td>Building Surveying (T)</td>
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<td>BE11</td>
<td>English (Form 5)</td>
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<tr>
<td>BY51</td>
<td>Builders Quantities or other approved elective</td>
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<tr>
<td>XC11</td>
<td>Communication and Report Writing</td>
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</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 Year 10 standard of education, and engagement in an appropriate vocational program.

<table>
<thead>
<tr>
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<th>Subject</th>
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<tbody>
<tr>
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<td>BL48</td>
<td>Practical Inspection (Building)</td>
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<tr>
<td>BL39</td>
<td>Scaffolding Inspection 1A</td>
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<tr>
<td>BL49</td>
<td>Scaffolding Inspection 1B</td>
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<tr>
<td>BL37</td>
<td>Specifications 1A and 1B</td>
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<tr>
<td>BL57</td>
<td>Statutory Control of Buildings</td>
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</tr>
<tr>
<td>BR41</td>
<td>Technical Reports (Building)</td>
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</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 Year 10.
MECHANICAL (Mechanical Drafting and Thermal Plant)
Course Code: TM

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

Exemptions
Passes in English, mathematics, physics and leaving engineering graphics at Year 11 level will exempt students from English 1T, Mathematics 1T, Science 1T and Drawing 1T. There will be no exemptions from the Trade Theory and Practice Modules TM01-TM20 (see Fitting and Machining Apprentice Course).

<table>
<thead>
<tr>
<th>Year</th>
<th>Code</th>
<th>Subject</th>
<th>Hours/wk</th>
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<tbody>
<tr>
<td>1st</td>
<td>TE11</td>
<td>English 1T</td>
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<td></td>
<td>TC11</td>
<td>Mathematics 1T</td>
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<td>TS11</td>
<td>Science 1T</td>
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<td>TD11</td>
<td>Engineering Drawing 1T</td>
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<td>Students must enrol for Modules TM01-TM08 (of the Fitting and Machining Apprenticeship Course).</td>
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<tr>
<td>2nd</td>
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<td>Science 2T</td>
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<tr>
<td></td>
<td>TC21</td>
<td>Mathematics 2T</td>
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<tr>
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<td>TD21</td>
<td>Engineering Drawing 2T</td>
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<td>Students must enrol for Modules TM09-TM16.</td>
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<td>3rd</td>
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<td>Mechanics 1T</td>
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<td>TH31</td>
<td>Applied Heat 1T</td>
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<td>TD31</td>
<td>Mechanical Drafting 1M</td>
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<td>Metallurgy 1T</td>
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<td>Students must enrol for Modules TM17-TM20.</td>
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<td>4th</td>
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<td></td>
<td>TH41</td>
<td>Applied Heat 2T</td>
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</tbody>
</table>
PRODUCTION Course Code: TP

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

Exemptions
Passes in English, mathematics, physics and leaving technical drawing at Year 11 level will exempt students from English IT, Mathematics IT, Science IT and Drawing IT. There will be no exemptions from the Trade Theory and Practice Modules TM01-TM20 (see Fitting and Machining Apprentice Course).

<table>
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<tr>
<th>Year</th>
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<td>Engineering Drawing 1T</td>
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<td>Students must enrol for Modules TM01-TM08 (of the Fitting and Machining Apprentice Course)</td>
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<td>TD21</td>
<td>Engineering Drawing 2T</td>
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<tr>
<td></td>
<td>Students must enrol for Modules TM09-TM11</td>
<td></td>
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<tr>
<td>3rd</td>
<td>TG31</td>
<td>Engineering Inspection 1T</td>
<td>2</td>
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<tr>
<td></td>
<td>TJ31</td>
<td>Jig and Tool Drafting 1T</td>
<td>2</td>
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<tr>
<td></td>
<td>TY31</td>
<td>Metrology 1T</td>
<td>2</td>
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<tr>
<td></td>
<td>TL31</td>
<td>Metallurgy 1T</td>
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<tr>
<td></td>
<td>Students must enrol for Modules TM17-TM20.</td>
<td></td>
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<td>4th</td>
<td>TJ41</td>
<td>Jig and Tool Drafting 2T</td>
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<td>TY41</td>
<td>Metrology 2T</td>
<td></td>
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<td>TT11</td>
<td>Toolmaking Practice 1</td>
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<td>TT21</td>
<td>Toolmaking Theory 1</td>
<td>4</td>
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<tr>
<td></td>
<td>TX41</td>
<td>Production Processes and Development 1T</td>
<td>2</td>
</tr>
</tbody>
</table>

SUBJECT SYNOPTES

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.
Prerequisite: 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 to given problems.
Assessment: Assessment of drawings.
References: To be announced.

Building Mathematics (T) BC14
A course of two hours per week for one year.
Prerequisite: Year 10 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 1T TD11
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: Year 10 or other suitable qualification.
Syllabus: Covers interpretation of scaffolding regulations, defines responsibilities of all persons involved in the provision, erection, and use of scaffolding including steel tube frames, suspended cantilever bracket, ladder and miscellaneous equipment.
Assessment: A (Administration) Final two hour exam. B (Structural) Final two hour exam.
References: To be announced.

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

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 required by a shorthand typist, or a bookkeeper typist. Mature-age students who are taking the course to retrain may be able to complete it in six months.

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

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

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

*These subjects are for one semester.
SUBJECT SYNOPSES

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 Calculations YE02
The objective of this unit is to familiarise students with the type of mathematics used in the office. Topics include use of percentages, interest tables, metric system, terminology of the Stock Exchange, graphic presentation, and an elementary introduction to statistics.

Business English A YD04
Business English B YX04
The aim of this subject is to aid students in improving language skills that are likely to be of use and prove important in professional work. Students will be assisted in acquiring habits of clarity of thought and precision in the use of language.

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

Commercial Practice YX03 (2 hours per week)
The emphasis in the course will be on the practical completion of bookkeeping tasks. These tasks will include working with documents, journals, ledgers and preparation of a trial balance. Other bookkeeping skills covered include bank reconciliation, petty cash and payroll.

Consumer Sociology 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 relation to the law.

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

Human Relations A YD05
Human Relations B YX05
This course is designed to promote a greater understanding of human relationships through a study of elementary psychology. Areas for discussion will include personality development, perception, human needs, temperament and emotion and psychological adjustment.
Office Practice A YD08
Office Practice B YX08
This course is designed to enable students to gain knowledge of the nature and organisation of the modern business as well as the organisation of the office itself and the procedures followed in the actual functioning of the office. Business procedures such as inward and outward mail, filing and indexing and the use of the telephone, composition of letters, duplicating, etc. are taken into account, and guest speakers have been arranged to demonstrate the use of switchboards, etc.

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

Shorthand A YD01
The theory of the Pitman’s system is fully covered with emphasis on accuracy, shortforms and phrasing. Emphasis is also placed on speed development and this is encouraged from the beginning of the course.

Shorthand B YX01
Speed development is covered to a much greater extent. Students are required to transcribe from their notes at every opportunity. Audio equipment is used extensively with the use of speed tapes. It is hoped that a speed of at least 80 wpm is reached at the end of the course.

Typewriting A YD07
Touch typing and rhythm is taught from the start and every aspect of theory is covered. Great emphasis is placed on accuracy. More facets of advanced typewriting are introduced once the keyboard has been mastered — e.g. setting out business letters, confused manuscripts, tabular work. Students also have some practical sessions on working with the dictaphone.

Typewriting B YX07
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 Course Code: CX13
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 Year 12 level. It is designed to provide practical training in computer operating and elementary programming. Students who complete this course successfully may apply for entry to the first year of the Bachelor of Applied Science (EDP).

Standard of Admission

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

Exemptions

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

Course Structure

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programming DP01 (full-time)</td>
<td>6</td>
</tr>
<tr>
<td>or Computer Programming DP02</td>
<td>3</td>
</tr>
<tr>
<td>and Computer Programming DP03 (part-time)</td>
<td>3</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>Mathematics and Statistics MS01</td>
<td>4</td>
</tr>
<tr>
<td>English Expression GE01</td>
<td>4</td>
</tr>
</tbody>
</table>

SUBJECT SYNOPSISES

**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, basic problem solving techniques, program debugging, testing and documentation. COBOL programming including magnetic tape processing. BASIC 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, basic problem solving techniques, program debugging, testing and documentation. BASIC programming, 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, 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 program embodies such general aims as the broadening and enrichment of the student's awareness of the world through the development of ability to read more rewardingly, to think and talk more cogently, and to write more clearly, relevantly and creatively.

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

Operating Practices 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, 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.

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

Mathematics and Statistics MS01
A course of four hours per week for two semesters.

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

Prescribed texts: To be announced.

References: To be announced.

CERTIFICATE OF POLICE STUDIES

Course Code: CD

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

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

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

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code</th>
<th>Unit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Behavioural Studies 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**

Course Code: NA

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

1st
Toolmaking Practice Part 1 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 SYNOPSIS**

**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.

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**CRANE OPERATORS BG11**

Course Code: SR

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

The duration of the course is three hours, one night per week for half a year.

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**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.

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**SCAFFOLDING 1 and 2 BS11 and BS12**

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.

Accentuated 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.

## ELECTRIC ARC WELDING

<table>
<thead>
<tr>
<th>Year</th>
<th>Subject name and code — syllabus</th>
<th>Course Code: NE</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Electric Welding Theory 1 WE11&lt;br&gt;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.&lt;br&gt;&lt;br&gt;Electric Welding Practice 1 WE12&lt;br&gt;Striking arc and forming beads; pad welding, fillet and butt welds; plug and slot welds; flame-cutting and gouging.</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>2nd</td>
<td>Electric Welding Theory 2 WE21&lt;br&gt;Preparation of materials; carbon steels; electrodes; welding procedures; jigs and fixtures; flame-cutting and allied processes; appreciation of special welding processes and welding costs.&lt;br&gt;&lt;br&gt;Electric Welding Practice 2 WE22&lt;br&gt;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>
<td>4</td>
</tr>
<tr>
<td>3rd</td>
<td>Electric Welding Theory 3 WE31&lt;br&gt;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.&lt;br&gt;&lt;br&gt;Electric Welding Practice 3 WE32&lt;br&gt;Fillet welds — single and multi-pass in all positions; pad, plug, slot and corner welds; test plates.</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>
OXY-ACETYLENE WELDING

Course Code: NO

Year | Subject name and code — syllabus | Hours per week
--- | --- | ---
1st | Oxy-acetylene Welding Theory 1 WG11 | 2
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.

Oxy-acetylene Welding Practice 1 WG12 | 4
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.

2nd | Oxy-acetylene Welding Theory 2 WG21 | 2
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.

Oxy-acetylene Welding Practice 2 WG22 | 4
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; hardsurfacing; pipe welding.

3rd | Oxy-acetylene Welding Theory 3 WG31 | 2
General knowledge of relevant SAA Codes; sound knowledge of filler rods; defective welds; costing and estimating; jigs and fixtures; welding aluminium, Inconel, Monel, nickel, special cast iron and alloy steels; welding high tensile strength tubular steels, pipe and tube welding.

Oxy-acetylene Welding Practice 3 WG32 | 4
Fusion welding low carbon steel up to 6 mm thick, in all positions; fusion butt welding aluminium, copper, brass, silicon bronze and stainless steels. Low-temperature brazing stainless steels, copper and aluminium; welding pressure pipes — butts and branches.

WELDING SPECIAL 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:
Certificate number | Description
--- | ---
1 | Manual metal-arc welding of carbon steel plate and double-butt welded carbon steel pipe.
1E | Manual metal-arc welding of carbon steel plate and carbon steel pipe over 270 mm outside diameter.
3 | Manual metal-arc welding of alloy steel plate and double-butt welded alloy steel pipe.
3E | Manual metal-arc welding of alloy steel plate and alloy steel pipe over 270 mm outside diameter.
4 | Manual metal-arc welding of alloy steel pipe.
6 | Gas welding.

FOUNDATIONS OF PROFESSIONAL WRITING

Course Code: EFO

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

Aim

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

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

SUBJECT SYNOPSIS

Basic English Competence EF01

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

Communication Strategies EF02

The subject is concerned with various aspects of communication, and it is intended to assist students in their development as communication '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; the nature, functions and effects of the mass media will be analysed, and their scope to inform and persuade will be examined. (Three hours per week)

**Film and Television Scripting EF03**

This subject is designed to introduce the student to basic film and TV craft. It studies the special problems that face the script writer in the creation of character and narrative, and provides opportunity for exercises in the construction of scripts. (Three hours per week)

**Imaginative Fiction EF04**

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

**Methodology EF05**

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

**Mythology and Symbolism EF06**

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

**Psychology — Personality Theories**

This is an introduction to the writings of depth psychologists, humanistic psychologists, and others who have been preoccupied with questions relating to the human personality. The main authors studied will be Freud, Rogers, Maslow and Laing. (Three hours per week)
Preparatory and Access Programs

TERTIARY ORIENTATION PROGRAM (TOP)

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

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

Method of Assessment
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, Business Studies, EDP, Engineering, General Studies and Secretarial Studies are shown below.

APPLIED SCIENCE

Course Code: EPO

The normal standard of admission is a pass at Year 11 level in English, Chemistry, Physics, Mathematics A and B, or Mathematics 1 and 2. There are no standard exemptions for any subject; students may apply for exemptions when enrolling if they believe they are eligible.
Subject name and code | Hours per week
---|---
English Expression GE01 | 4
Pure Mathematics YM06 | 5
Applied Mathematics YM07 | 5
Physics PP01 | 6
Chemistry KC01 | 6

**ART**

**Course Code: EAO**

To qualify for admission to the course, students must have completed Year 11 and have submitted a folio of work for final assessment. (For mature-age students, assessment by a panel of a folio of work is the only requirement.)

The course involves 24 'class-contact' hours per week — 12 hours are devoted to instruction in practical subjects and 12 hours to academic subjects.

Subject name and code | Hours per week
---|---
**Practical subjects**
Drawing AD01 | 3
Design AD04 | 3
*plus two subjects from the following list, to be studied in each semester:*
Photography YA08 | 3
Gold and Silversmithing YA06 | 3
Sculpture YA15 | 3
Stained Glass YA14 | 3
Ceramics YA11 | 3
Painting YA09 | 3
Printmaking YA12 | 3
Graphic Design YA16 | 3

**Academic subjects**
English Expression GE01 | 4
History of Art AH01 | 2
*plus two of the following subjects:*
Sociology YA02 | 3
Philosophy YS01 | 3
Psychology YY01 | 3
Media Studies NS03 | 4

**BUSINESS STUDIES**

**Course Code: ETO**

Students who have just completed Year 11 in 1980 with passes in English and three other subjects and who live within the region serviced by CIT, are eligible to apply for TOP Business.

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

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE01</td>
<td>4</td>
</tr>
<tr>
<td>Quantitative Methods</td>
<td></td>
</tr>
<tr>
<td>A &amp; B NB02</td>
<td>4</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>

**ELECTRONIC DATA PROCESSING**  
Course Code: EEO

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

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE01</td>
<td>4</td>
</tr>
<tr>
<td>Accounting NB03</td>
<td>5</td>
</tr>
<tr>
<td>Computer Programming DP04</td>
<td>4</td>
</tr>
<tr>
<td>Data Processing Systems &amp; Equipment DE02</td>
<td>4</td>
</tr>
<tr>
<td>General Mathematics NM02</td>
<td>4</td>
</tr>
</tbody>
</table>

**ENGINEERING**  
Course Code: EVO

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

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Expression 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>Industrial Chemistry KC02</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>

**GENERAL STUDIES**  
Course Code: EGO

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

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian Studies</td>
<td>NW02</td>
<td>3</td>
</tr>
<tr>
<td>Australian History</td>
<td>NW01</td>
<td>3</td>
</tr>
<tr>
<td>Australian Studies</td>
<td>NH09</td>
<td>3</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>Drama and Literature</td>
<td>NH05</td>
<td>4</td>
</tr>
<tr>
<td>Economics</td>
<td>NE01</td>
<td></td>
</tr>
<tr>
<td>English Expression</td>
<td>GE01</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>NC01</td>
<td>4</td>
</tr>
<tr>
<td>†General Mathematics</td>
<td>NM02</td>
<td>5</td>
</tr>
<tr>
<td>Geography</td>
<td>NW06</td>
<td>4</td>
</tr>
<tr>
<td>Human Rights</td>
<td>NH01</td>
<td>3</td>
</tr>
<tr>
<td>Legal Studies</td>
<td>NL02</td>
<td>3</td>
</tr>
<tr>
<td>Literature and Society</td>
<td>NH06</td>
<td>4</td>
</tr>
<tr>
<td>Media Studies</td>
<td>NS03</td>
<td>4</td>
</tr>
<tr>
<td>Philosophy</td>
<td>YS01</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>NP01</td>
<td>5</td>
</tr>
<tr>
<td>†Physics</td>
<td>PP01</td>
<td>6</td>
</tr>
<tr>
<td>Politics</td>
<td>NL01</td>
<td>3</td>
</tr>
<tr>
<td>Psychology — Human Personality</td>
<td>YY01</td>
<td>3</td>
</tr>
<tr>
<td>Sociology</td>
<td>YA02</td>
<td>3</td>
</tr>
<tr>
<td>Statistics for General Studies</td>
<td>NM01</td>
<td>3</td>
</tr>
<tr>
<td>Women’s Studies</td>
<td>NS02</td>
<td>3</td>
</tr>
</tbody>
</table>

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

### SECRETARIAL STUDIES

**Course Code: ESO**

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

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

<table>
<thead>
<tr>
<th>Subject name and code</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>English GE01</td>
<td>4</td>
</tr>
<tr>
<td>Accounting NB03</td>
<td>5</td>
</tr>
<tr>
<td>Data Processing 1 ES13</td>
<td>4</td>
</tr>
<tr>
<td>Secretarial Practice ES12</td>
<td>3</td>
</tr>
<tr>
<td>Typing ES11</td>
<td>6</td>
</tr>
</tbody>
</table>
SUBJECT SYNOPSES

Accounting 1 & 2 NB03
An introduction to business and the accounting conventions. An appreciation of the requirement for business records and the functions of basic business documents. The completion of a set of books to trial balance, the preparation of a bank reconciliation statement, the maintenance of an imprest petty cash system, and debtors and creditors subsidiary ledgers.

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

Applied Mathematics YM07
Prerequisites: Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B.
Syllabus: Probability, including probability distributions and functions; statistics; vectors; applications of calculus; kinematics; mechanics; dynamics; statics and an introduction to computer programming in BASIC.

Asian Studies 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 History NW01
The subject aims to give an overview of 19th and 20th century Australia. The people of the 19th century are divided into occupational groups in order to look at the ways in which all combined to help Australia grow into a unified nation. The 20th century is examined via the impact of major world events on Australia and Australians. Themes that are developed in the first section are raised again as they relate to the experiences of 20th century Australia.

Australian Studies NH09
This is a one-year subject composed of two semester units selected from the following:

a. Migrants in Australian Society
b. Literature, History and Culture
c. Urban Studies.

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

Migrants in Australian Society involves an evaluation of the composition of Australian society, attitudes to minority groups, the impact of large scale immigration and changes which may be attributed to immigration.
Literature, History and Culture provides a view of how Australians have seen themselves over a period of time and how, if at all, these views have changed. Questions will be asked about the relationship of the writer to society and whether those writers' views reflect the broad values of society at the time.

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

**Biology 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**

*Prerequisite:* Year 11 Chemistry.


**Classical Civilisation NW04**

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

The general aim of this subject is to provide an introduction to various important elements of Classical Greek culture in a way that will make clear both

a. the unique character of that culture; and

b. why a study of it is so important for us today (especially in the realm of shared emotional experiences).

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

The following areas are isolated for specific study:
- Beginnings in history/myth/language
- Drama — tragedy and comedy
- Poetry — lyric and epic
- Philosophy and science
- Art
- History and historiography.

**Computer Programming DP04**

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

**Data Processing I ES13**

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

**Data Processing Systems & Equipment DE02**

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

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

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

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

**Syllabus:** Algebra, differential and integral calculus, differential equations, vectors, matrices, complex numbers, statics and dynamics.

**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.
Environmental Science NC01
This course is designed to contribute to environmental education by providing a course concerned with scientific attitudes applied to environmental management and planning.

The units studied are:
1. The systems approach and theoretical ecologies
2. Water resources
3. Energy resources
4. Forest resources.

The course is suitable for students who intend to pursue tertiary scientific courses as well as those who do not.

General Mathematics NM02
Prerequisites: Year 11 Mathematics I and 2 or Year 11 Mathematics A and B.
Syllabus: Algebra, differential and integral calculus, statistics, probability, matrices, linear programming, circular functions, mensuration, sequences and series, and permutations and combinations.

Geography NW06
The aim of the course is an appreciation of the whole environment and the recognition of the impact of geography on our lives. It consists of four units:
1. Meteorology — weather and climate
2. Man and his impact on the environment
3. Agriculture — a technological revolution
4. Manufacturing — industrial location.

The course is a practical one developing skills especially in map reading and data representations as well as excursions/field work relating to each of the four areas.

Gold and Silversmithing 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 YA16
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.

History of Art 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.

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
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 and 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 NS03
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.

Painting YA04/YA09
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
Philosophy, as one philosopher observed, begins in wonder. The aim in this subject is to enlarge the student’s understanding of human experience through a study of some questions provided by the history of philosophy.

The central theme of the course is human nature. Topics selected for discussion will be ones which are of religion, moral philosophy, political philosophy and aesthetics. The subject involves an exploration and discussion of the writings of philosophers belonging to the ancient, modern and contemporary periods.

The starting points of discussion may arise out of some widely treated issues of the present time, such as violence, war, prejudice, freedom and responsibility, the rule of the law, sexism, poverty, death, drugs, work, mass media, the arts, etc.

The following questions illustrate some broader philosophical issues to which discussion may be related:
- Does man have a soul?
- Is the soul immortal?
- What is reality?
- What is happiness?
- What are the legitimate limits of social control and individual freedom?
- What is an object of art?
- What is an aesthetic experience?
- What is the purpose of art?
What is an individual person?
Does man have free will?
Can God's existence be proved?
What is self-realisation?
The program of study in each semester will be determined by teachers in consultation with students.

Photography YA08
The subject covers basic black and white photographic technique — how to make a correct exposure; developing and printing procedure. Aspects of appreciation will be included in projects set. Students will require a 35mm camera with manual controls and a light meter.

Physical Science NP01
**Prerequisites:** Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B.
*Syllabus:* Three compulsory units:
1. change and interaction
2. energy transformations
3. useful materials
Two optional units chosen from: chemical changes; waves, sound and music; electrical energy; carbon based materials.

Physics PP01
**Prerequisites:** Technical Physics and Mathematics A and B or High School Physics, Mathematics 1 and 2.
*Syllabus:* Systems of units; vectors, kinematics; particle dynamics; friction; rotational dynamics; vibratory motion; electricity and magnetism; waves; optics; gravitation; radioactivity; models of atoms; heat and one optional unit.

Politics 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 YA12
To introduce students to materials processes, and techniques in printmaking. Students will acquire skills related to many processes, eg. etching, silk screen printing, etc. Fine art, print appreciation and media identification will be given along with projects at given intervals.

Psychology: Human Personality YY01
This course is conceived of as neither terminal nor preparatory, but as a phase in a continuous process of life-long education. In this context, the general aim of the course may be stated as being: to enable the student to
understand better, and to the best of his ability, both now and as he grows older, himself and his environment.

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

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

**Pure Mathematics YM06**

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

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

**Quantitative Methods A & B 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.

**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.

**Secretarial Practice ES12**

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

**Sociology 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**

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

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

**Statistics for General Studies 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. Topics covered include: graphical analysis, network analysis, presentation of data, measures of central tendency and dispersion, probability, normal distribution, linear regression and correlation.

**Typing ES11**

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

**Women’s Studies 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)**

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. Students under 21 years of age must pass a minimum of four subjects; those over 21 years must pass a minimum of three subjects.

**Assessment**

Students are advised to familiarise themselves with the conditions and assessment procedures 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>Day-time</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>YF01</td>
<td>4</td>
<td>3</td>
<td></td>
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<tr>
<td>Applied Mathematics</td>
<td>YM05</td>
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<tr>
<td>Asian History</td>
<td>YW05</td>
<td>4</td>
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<tr>
<td>Australian History (Survey Course)</td>
<td>YW01</td>
<td>4</td>
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<td>Biblical Studies</td>
<td>YW06</td>
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<tr>
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<td>6</td>
<td>4</td>
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<tr>
<td>Chemistry</td>
<td>YK02</td>
<td>6</td>
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<tr>
<td>Classical Civilisation</td>
<td>YW04</td>
<td>4</td>
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<tr>
<td>Commercial and Legal Studies</td>
<td>YL02</td>
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<tr>
<td>Economics</td>
<td>YE01</td>
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<td>English Expression</td>
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<td>English Literature</td>
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<td>4</td>
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<tr>
<td>General Mathematics</td>
<td>YM03</td>
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<td>3</td>
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<tr>
<td>Geography</td>
<td>YW03</td>
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<td>Physics</td>
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<td>Politics</td>
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<tr>
<td>Pure Mathematics</td>
<td>YM04</td>
<td>5</td>
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</tbody>
</table>

### SYNOPSES

#### 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

**Prerequisites**: Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B. Mature-age entry available.

**Syllabus**: Vectors, permutations, combinations, probability and probability distributions. Statics of a particle and rigid body, D.Es, kinematics, dynamics, circular motion and S.H.M.

#### 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 (ie. 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, miosis, behaviour due to DNA structure, genetic differences between organisms. Evolution — genetic flow, mutations, man's interaction with his environment.

**Chemistry YK02**

_Prerequisites:_ Year 11 Chemistry. Mature age entry.

Classical Civilisation YM04
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 Assistant.

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 units studied are:

1. the systems approach and theoretical ecologies
2. water resources
3. energy resources
4. forest resources.

The course is suitable for students who intend to pursue tertiary scientific courses as well as those who do not.

**General Mathematics YM03**

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

*Syllabus:* Algebra, sequences and series, co-ordinate geometry; circular functions; differential and integral calculus; permutations and combinations; probability — including probability distributions and functions; statistics; matrices; linear programming; binomial theorem, mensuration.

**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.

**Physical Science YP06**

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

*Syllabus:* Three compulsory units:

1. Change and interaction: changes in motion, factors affecting chemical change, technological innovation and social change.
2. Energy transformations: transfer of energy, energy conservation and degradation, energy in society.

Two optional units to be chosen from: chemical change; waves, sound and music; electrical energy; carbon based materials.

**Physics YP03**

*Prerequisite:* Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B. Year 11 Physics. 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:* Year 11 Mathematics 1 and 2 or Year 11 Mathematics A and B. Mature age entry.

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

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**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
- Electrical Practices Orientation
- Fitting and Machining Orientation
- Metal Fabrication and Welding Orientation
- Plumbing and Sheetmetal Orientation
- Radio Trades Orientation

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

Third Term Subjects

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

Students select one of the six listed trades:
- Building Studies
- Electrical Practices
- Fitting and Machining
- Metal Fabrication and Welding
- Plumbing and Sheetmetal
- Radio Trades

Concurrently with trade studies students receive academic studies as below:

First Semester Academic Subjects:
- Mathematics 1T
- Science 1T
- English 1T
- Graphics

Second Semester Academic Subjects:
- Mathematics 2T
- Science 2T
- English 2T
- Graphics

SUBJECT SYNOPSES

English 1T — XX01

A unit of four hours per week for one semester.
Prerequisite: A satisfactory completion of Year 10 English.

Syllabus: Comprehension and note taking, report writing, oral communication, use of audiovisual equipment, book appreciation and reporting, grammar.

Assessment: Cumulative assignments.

Prescribed text:
CHARLWOOD, D. E., *All the Green Year*.

**English 2T — XX02**
A unit of four hours per week for one semester.

Prerequisite: English IT.

Syllabus: Debating, creative writing, extension of report writing, job application preparation, public speaking.

Assessment: Assignments, cumulative.

Prescribed texts: Novels of student choice.

**Forensic Science XK21**
A course of two hours per week for two semesters.

Prerequisites: This subject is only available to students completing a Certificate of Police Studies.

Syllabus: Sampling, impressions, document examination, firearms, matching of exhibits, serology, photography, drawing.

Assessment: Each topic is individually assessed by testing, assignments, or practical work.

Reference: Class notes provided.

**Graphics — XB09**
A unit of three hours per week for two semesters.

Prerequisites: None.

Syllabus: Reading and interpretation of drawings, electrical building and mechanical drawings, orthographic, isometric and simple perspective illustrations.

Assessment: Cumulative assignments.

Prescribed text: To be advised.

**Mathematics 1T — XM01**
A unit of four hours per week for one semester.

Prerequisite: A satisfactory completion of Year 10 Mathematics.

Syllabus: Surds, indices, trigonometry, vectors, simultaneous equations, measurements, factorisation, quadratic equation and graphs.

Assessment: Cumulative tests and assignments.

Prescribed texts:
Leaving Mathematics C — Core notes.
Leaving Mathematics C — Unit notes.

**Mathematics 2T — XM02**
A unit of four hours per week for one semester.
Prerequisite: Mathematics IT.

Syllabus: Transposition of formula, indices, cartesian and polar coordinates, three dimensional trigonometry, extension of graphs, simple and compound interest, arithmetic and geometric progression and areas of irregular figures.

Assessment: Cumulative tests and assignments.

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

Science 1T — XK01
A unit of four hours per week for one semester.

Prerequisite: A satisfactory completion of Year 10 Science.

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

Assessment: Cumulative tests, assignments and practical work.

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

Science 2T — XK02
A unit of four hours per week for one semester.

Prerequisite: Science 1T.


Assessment: Cumulative tests, assignments and practical work.

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

FOUNDATIONS IN ART

This program has been designed to give the student a thorough basic knowledge in techniques related to the particular field of art he/she is studying.

It is envisaged that the student will wish, at some stage, to operate an independent studio to enable him/her to set up a cottage industry or be a practising artist.

The program will consist of a series of short courses in the following areas:

Painting  Film  Ceramics
Printmaking  History of Art  Photography

Students wishing to apply to enter the program should have had some experience in the visual arts. However, this need not be extensive.
EDUCATION PROGRAM FOR UNEMPLOYED YOUTH (EPUY)

This program is designed to help unemployed youth between the ages of 15 to 19 to gain literacy and numeracy skills as well as skills of a more personal nature which will assist them to become more employable. During the year two such programs are run, each of 16 weeks duration.

PREPARATORY POLICE STUDIES

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

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

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 the program co-ordinator on 573 2270.

WOMEN'S ACCESS PROGRAMS

These eight to 12 week courses develop self-confidence and equip women with skills relevant to daily life. Women's Access Programs introduce a range of learning and information, and encourage women to enter into technical and further education.

Technical institutes, apprenticeships and the manual trades — traditionally domains of male learning — have in the past excluded women from equal participation. This has limited the choices and opportunities available to girls and women in seeking a vocation or in retraining to re-enter the workforce.

Women’s Access Programs make available to women a range of traditional and non-traditional female areas of learning.

Courses are made accessible to women by holding them in local community centres close to public transport eg. Malvern Community Arts Centre; Malvern Neighbourhood Centre; Caulfield Community Arts Centre and the Waverley Community Learning Centre.

Child minding services are always provided and attendance times fit in with school hours and shopping routines.

There is no assessment nor academic pressure. Instead the learning groups are relaxed and supportive.
Carpentry
An introductory nine week course which assumes no prior knowledge. Women are introduced to basic use of tools; techniques in planing and sawing timber; construction of basic joints. Students design and complete a project of their own choice.

Ceramic Sculpture
Open to individual expression ceramic sculpture is an inexpensive art form. This eight week course teaches basic sculpture techniques in ceramics. Methods of building; hand modelling of clay and techniques in surface treatment are taught. Slides and photographs of works by women which illustrate various avenues of expression and the uses of materials are studied.

Home Repairs
An invaluable eight week course in basic household skills such as changing a lightbulb; making an extension lead; basic wiring and carpentry skills; replacing an old lock; plastering walls. The course is taught in a neighbourhood house allowing skills to be easily transferred to the students' own domestic situation.

Returning to Study
This 12 week course prepares women who have decided to return to study after an absence from learning institutions. Skills in essay writing; studying; note-taking and presentation of tutorial papers are taught.

Educational institutions — the services they provide and physical design are looked into. The course develops self confidence in women and provides women with an opportunity to prepare for the academic and family pressure they will encounter in re-entering the education arena.

Rights and Resources
An informative nine week course for women who are uncertain of their rights in given situations or of resources available in the community. Areas looked into include legal aid; health care; employment and social security benefits. Assertion skills are studied in relation to dealing with authority figures.

Screenprinting
An introduction to the design and printing of material and paper. The eight week course starts with the construction of screens. Stencil methods and facets of multi-colour work are demonstrated. Women have the opportunity to design and produce their own work.

Self Awareness and Growth
This course seeks to provide an opportunity for women to become self aware, self accepting and self assertive. Images and the roles women have learnt are looked at through techniques of role-playing, video; reading material and class discussion.
PRE-CERTIFICATE OF TECHNOLOGY
(To be offered subject to approval.)
This is a full time or part-time program specially designed to provide entry into a Certificate of Technology for individuals or groups of individuals who do not have the necessary level of mathematics and science for entry to the Certificate Course.

The course will emphasise mathematics and science, but will include the development of communication skills, report writing and an introduction to the various engineering disciplines. Entry will be for mature age students and for exit students from Year 11 who are unable to enter a course with the appropriate mathematics and science required for entry to the Certificate Course.

Students will be carefully counselled before enrolling for the program to ensure that they wish to proceed to a Middle Level Certificate of Technology. In some cases exit Year 10 students, who have been counselled and indicate a desire to undertake a Certificate of Technology, will be admitted to the course if an appropriate course is not available at a secondary school.

PROGRAMS FOR THE HANDICAPPED
A range of programs for the handicapped are offered within the School of Community and Access Education. These include:

A pre-vocational skills development program for handicapped young adults and adolescents
This program involves students in a variety of activities and provides them with opportunities to improve both their personal and academic skills. The program offered to students focuses on the development of numeracy and literacy skills and provides them with work experience and a range of elective options designed to assist them to cope with life in a more independent way.

A transition program for students from special schools
This program is directed at students in their final year of special school. It aims to provide students who may have a variety of handicaps (emotional, physical, intellectual) relevant experience of both a vocational and social nature. Activities undertaken include: process and assembly work; office duties; and repetitive engineering work.

A further education program for adults attending day-training centres
Adults come to CIT to participate in this program at least one evening per week. Its objectives include:

a. the development of confidence and autonomy in the participants;
b. to provide those involved in the program with the means of pursuing purposeful and interesting hobbies and leisure activities;
c. the development of some academic skills in the areas of numeracy and literacy;
d. to develop and expand social contacts and activities.
WAY-IN PROGRAM

This program generally takes place during the evenings of the second semester and is intended as a preparatory Year 12 program. There are no prerequisites required. Subjects offered fall into three main categories:

- General Studies and Humanities;
- Applied Science;
- Business Studies.

The range of subjects includes:

- Approaches to Literature
- Biology
- Bookkeeping
- Chemistry
- English (this subject is compulsory to all students taking the Way-In Program)
- English for Migrant Students
- General Business Education
- Introduction to Psychology
- Mathematics
- Physics
- Introduction to Sociology
- Typing

Way-In course requirements

All students taking the Way-In Program will be expected to take English and at least one or two other subjects. If, at some stage, English has been passed in Year 11 students may gain an exemption from doing that subject.

SUBJECT SYNOPSISES

Approaches to Literature YC0100 12 weeks

This will be an elective subject and is designed to cater for those students with an interest in the study of English Literature. It is suggested that before enrolling for this subject, students consult the subject co-ordinator.

Biology YT0100 15 weeks

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

Book-keeping YC0700 12 weeks

This is intended as an introductory course. It will include an examination of journals, ledgers, trial balances, petty cash, bank reconciliation and payroll.

Chemistry YT0200 18 weeks

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

**English YC0200 20 weeks**
All students will be expected to take English in the Way-In Program. The course will attempt to assist students to reach an acceptable level of written and spoken English before tackling Year 12 courses of study. Attention will be paid to individual weaknesses and, where possible, separate programs will be designed to overcome these. In addition, a compulsory part of the course will be a Study Skills unit which will focus on the development of such skills as:

- Research Techniques
- Essay Report Writing
- Organisation of Study
- Reading and Note Taking
- Lectures, Tutorials and Note Taking.

**English for Migrant Students YC0300 15 weeks**
People who require instruction in English as a second language will be asked to take this course which is designed to assist them in attaining both oral and written skills. Both English courses will be specifically directed towards the development of skills necessary to attempt HSC or TOP in 1981.

**General Business Education YC0400 12 weeks**
This course is designed to provide students with a background to business and the law, with emphasis on economics and consumer sociology.

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

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

**Mathematics YT0300 18 weeks**
This course is designed to lead students into HSC Mathematics, TOP Mathematics, Sciences and Engineering and the Mathematics which are covered in General Studies courses. Areas to be studied will include: number systems, indices and logarithms, matrices, polynomials, sketch graphs, simple trigonometry, permutations and combinations.
Physics YT0400 18 weeks
This course is designed to lead students into HSC Physics or TOP Physics. Laboratory work is included in the course. Topics to be studied will include system of units, vectors, kinematics, particle dynamics, rotational dynamics, electricity and magnetism, optics; models of atoms, waves.

Typing YB0800
Students will be given step-by-step instruction in keyboard mastery followed by an introduction to basic layout, letter display, and easy centering and tabulation exercises.

WAY IN (Full-time)
This is a full-time program designed to prepare individuals for studies in HSC, TOP or any other TAFE course. WAY IN is open to anyone who wishes to return to study; there are no entrance qualifications or age barriers.

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

COMPENSATORY EDUCATION
Clear Thinking
In this course the skills of analysis, synthesis and appraisal of materials are imparted to students studying Year 12.

Courses for Part-time Students
Study Skills, Essay Writing and Clear Thinking classes are available for part-time students.

Essay Writing
Three courses are offered —
Basic Writing Skills. This course introduces the different skills and styles of writing, with emphasis on writing different types of paragraphs.
General Essay Writing. Planning of essays, analysis of different kinds of essay questions and the study of different types of essays are covered in this course.
Writing for Specific Purposes. This course teaches the skills of review and report writing, as well as the development of particular writing styles for different subjects.

Examination Technique
Towards the end of the year, this course is offered to students who are preparing for examination.

Individual Tuition
These sessions cater for students with individual requirements who may meet with a teacher on a one to one basis.
Programs for Apprentices
These programs are specifically directed at assisting apprentices undertaking a variety of TAFE courses to improve their skills in written and oral English expression.

Small Group Tuition
Students with similar requirements are placed in small groups to meet those needs.

TOP Alternative English
This subject is designed for non-native English speaking students who have been in Australia for less than three years.

COURSES OFFERED TO STUDENTS IN THE COMMUNITY

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

In de-institutionalised situations, either at the Institute or in one of their own homes, students and tutors meet at mutually convenient times.

Resources and materials are provided by CIT and many group activities are arranged.

Advanced Level
This course takes place twice a year.
First Course Semester 1: February-June (eight hours per week) Thursday and Friday morning.
Second Course Semester 2: July-November (eight hours per week) Thursday and Friday morning.

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

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

Bi-lingual Community Based Migrant English Program
This program attempts to fulfill the needs of those migrant people in the community who find it difficult to travel to a centre such as CIT. It also offers English instruction to migrants who have a lower level of English, and where possible, use their first language as a medium of instruction.
Educational Programs for Older Adults

A number of educational programs for older adults, designed to stimulate and involve (mature age) people who wish to pursue a range of interests of an academic nature will continue to be offered in 1981.

These activities will focus on:
- Recollections of the Depression Years
- The War Years 1939-45
- The 50s
- Creative Writing

Participants will be asked to join in group discussions and give their impressions of Australian society. There will be opportunity for those who wish to do so to record their views on tape or in print.

Evening Part-time Classes in Lower Intermediate and Advanced Migrant English

These classes involve the skills of speaking, reading, writing and listening. They are available for students who are unable to attend day classes.

Intensive Migrant English Program for Professionally Qualified People

As well as more advanced general language skills, this course concentrates on the skills necessary for qualified migrants to go on to study, or re-train, or to work and become fully involved in Australian society.

Part-time Intensive Migrant English Intermediate Level (day)

This course takes place twice a year.
- First Course Semester 1: February-June (eight hours per week) Tuesday and Wednesday morning.
- Second Course Semester 2: July-November (eight hours per week) Tuesday and Wednesday morning.

Programs for Industry Workers

(Subject to approval.)
A range of programs designed to give workers in industry access to education. These courses include:
- English
- Communication Skills
- Introduction to Economics
- Technology Assessment

They have been designed with the interests of this group of people in mind and can be conducted at either CIT or a mutually convenient location.

Adult Short Courses

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

Advanced Typing
Audio Typing
Basic Science for Nurses
Basic Typing
Bookkeeping (Basic)
Bookkeeping (Advanced)
Business Communication
Computers in Education
Elementary Computer Programming
Everyday Economics
Financial Management for a Small Business
Operating a Small Business
Planning and Starting a Small Business
Shorthand Theory (Pitman 2000)
Shorthand (Speed for Beginners)
Shorthand (Speed for Advanced Students)
Study Skills

Language Program

Chinese for Beginners
Dutch for Beginners
German for Beginners
German II
Indonesian for Beginners
Italian for Beginners
Italian II
Italian III
Japanese for Beginners
Modern Greek for Beginners
Modern Greek II
Russian for Beginners
Spanish for Beginners
Thai for Beginners

Food, Health and Human Relations Program

Cake Decorating for Beginners
Communication Skills
Dinner Party Cooking
Food and Your Health
Human Relations
Indian Vegetarian Cooking
Personal Development Skills
Personality Development and You
The Way to Natural Health
Yoga for Beginners (Hatha)

Creative Hobbies and Skills Program

Basic Seamanship
Basic Industrial Pneumatics
Basic Typing
Students will be given step-by-step instructions on keyboard mastery,

Advanced Typing
This course is for students who have already mastered the typewriter keyboard. Each class will consist of speed and accuracy development, as well as production tasks in some aspects of typewriting display.

Audio Typing
This is an introductory course to train students to use a dictaphone and type confidently and efficiently from it. Dictaphones are now used in many businesses and proficiency in this area is useful in obtaining employment. Students beginning the course should have completed a basic course in typing and be able to type from printed matter at the rate of at least 30 wpm.

Basic Science for Nurses
This short course is designed for those students with little or no background in Chemistry, Physics and Quantitative Methods.

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

**Bookkeeping (basic) 1**
This is an introductory course giving instructions in journals, ledgers, trial balance, petty cash, bank reconciliation and payroll.

**Bookkeeping (basic) 2**
This course is designed for people working in small businesses, or those wishing to gain employment in business and commerce. The course outlines the bookkeeping process which enables you to keep journals, ledgers and covers trial balance, petty cash, bank reconciliation.

**Bookkeeping (advanced)**
This course follows on from the basic bookkeeping program. The topics covered will include:
- revision of bookkeeping cycle
- revenue statements and balance sheets
- balance day adjustments
- depreciation and asset registers
- stock valuation
- club accounts
- incomplete records.

**Business Communication**
Are you in business and wish to develop written communication skills? Do you need skills in constructing appropriate business letters, or report presentation? How is today's technology affecting written communication?

This course aims to examine and develop some of the skills required for effective communication in business today, and how to use business communication as a means of improving business relations. Emphasis is placed upon:
1. an examination of the impact of technology on business communication;
2. the types of written communication;
3. the development of guidelines and skills to deal with difficult situations, queries and the writing of responses to them.

**Computers in Education**
This course is designed to cater for secondary teachers who intend to develop, or have recently undertaken, some computer studies courses in their schools. The course will cover various means of implementing computer studies in the school (e.g. marked cards, programmable calculators and microcomputers), as well as providing background and support material related to the introduction of computer studies into the curriculum. Material and instruction in computer programming, using BASIC program language, will also be provided. Issues relating to the social impact of computers and computers as a career will also be covered. No previous knowledge and/or experience in computer studies is required.
Financial Management for a Small Business
This course is recommended to owners/managers of small businesses who want a better appreciation of financial statements and financial management. The course covers the use of financial analysis in evaluating the performance of a business and the need for financial planning, credit, collection procedures and inventory management. The course provides an explanation of some key provisions of the Taxation Act as they affect the small business person.

Operating a Small Business
Managing successfully or simply managing? Whatever the case may be, you, the owner/manager of a small business, do need information and knowledge to make decisions. This course aims at assisting you to make better decisions. Topics included in the course are: marketing, financial management, taxation, insurance, and the legal problems of a small business.

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

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

Study Skills 1
This program assists students beginning Year 12 of study to acquire skills in —
Lectures and Note-taking
Reading and Note-taking.

Study Skills 2
This intensive four week program assists students to confidently begin Year 12 courses of study in 1981. Separate groups cater for native and non-native speakers of English. The course covers —
Organisation of Study
Reading and Note-taking
Lectures and Note-taking
Research Techniques.
SUBJECT SYNOPSES

Food and Your Health
The aim of this course is to develop an understanding of food values and their relevance to health and the prevention of illness. The vast amount of nutritional knowledge acquired during this century should not stay in textbooks for doctors and dieticians, but be available to people generally.

In this course, the topics include the study of fibre, sugar, honey, digestion, calories and the cooking and processing of food for maximum nutritional value.

On completing the course, students should be able to distinguish between fact and fiction in the many advertisements to do with food and health, and design and enjoy a healthy, balanced diet. Films will be used to stimulate discussion in the classes.

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

There is some theoretical input into the course. Some sessions 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 and listening skills, an increase in self-awareness, an understanding of the needs and feelings of others, and an ability to deal more creatively with conflict.

Personality Development and You
The general aim of this subject is to introduce you to a basic study of some personality theories. It is hoped you will gain a greater insight into yourself, your behaviour and attitudes and the way you relate to the world around you.

The theories of the humanistic psychologists, Maslow and Rogers, will be introduced to you, with special emphasis on self-actualisation. The work of the depth psychologists, Freud and Jung, will also be included, as well as Erikson's theory of the psycho-social stages of development.

There will be at least two films shown to you during the course.

The Way to Natural Health
Make health a habit: an educational program to lead you to a better understanding of how your diet, body functions, feelings and environment affect your general well-being. Learn ways to improve your health naturally by balanced diet (emphasis on whole foods) body cleansing, breathing, relaxation, exercise and accupressure.
Basic Industrial Pneumatics
The course is intended for those concerned with the operation, maintenance, and sales of equipment incorporating pneumatic control circuits. It will impart an understanding of basic pneumatic control circuits and pneumatic fault finding. Demonstrations and some practical work for students will be included.

Basic Photography
This course enables students to:
- understand the tasks involved in operating a camera (which includes film loading, aperture, exposure, use of depth of field etc);
- use the camera for desired creative effects;
- familiarise themselves with the operation of the darkroom and its associated equipment;
- understand the processes of developing and printing;
- investigate further creative techniques.

The course is largely practical and students are assigned simple photographic projects to complete.

No prior knowledge of photography is assumed and topics are dealt with in a simple manner.

Figure Drawing for Beginners
This course introduces the student to all aspects of figures and general drawing. This includes sketching, picture composition, head studies, costume drawing, etc. Various media such as pencils, charcoal, inks and paints are encouraged. Slide shows and discussions are included. Students will be advised of materials needed at the first class.

Guitar (Folk and Classical) for Beginners
This is a series of acoustic guitar lessons endeavouring to broaden an elementary guitar knowledge and to introduce various styles. The students will be given an opportunity to concentrate on traditional classical guitar (incorporating standard techniques) and note reading in contemporary styles such as ragtime or folk.

Guitar II
This course will continue from the Guitar for Beginners program completed at CIT, or the equivalent elsewhere.

Italian Creative Cuisine
An imaginative Italian cookery course run for people who are aware of the fun and enjoyment a convivial table can offer. The course is structured on northern Italian family cuisine and utilises original household recipes. It
aims to bring people and basic life pleasures together. Twenty to 30 recipes will be demonstrated during the course. The cooked meal will be eaten by the group after it is prepared.

**Painting and Drawing**
This program caters for beginners as well as those more familiar with general painting and drawing skills. The course will introduce students to basic printing techniques and methods. It will cover aspects of the craft of painting as well as some relevant compositional skills involving an understanding of colour, space and form. The drawing component aims to develop skills in objective drawing and drawing as a preparation for painting. Media used and explored will be oil, water colour and acrylic, pencil, charcoal, collage and chalks.

**Photography II**
Students wishing to do this course should have completed the Basic Photography course at CIT, or the equivalent elsewhere.

The main emphasis will be on solid practical work, with individual and group discussions and projects. Tutorial work will develop the growth of attitudes and ideas as well as improve individual work.

Participants are expected to be able to process and print panchromatic materials before enrolling in this intermediate stage course.

**Using Portable Power Tools**
This course covers instruction in the safe use, selection and maintenance of the more common hand-held power tools. The power tools covered in the course will be electric drills, routers, saws and jig saws. After initial instruction, stress will be placed on the practical and safe use of the various tools.

**Welding for the Hobbyist**
If you wish to be able to use oxy-acetylene and electrical welding equipment, then this course may suit you. After an introductory period, this course will equip you with skills in welding for a range of practical applications. Gas and rods will be supplied, but students will be required to pay for materials used for models made.

(CIT's TAFE Division also conducts Welding Certificate Courses. For information regarding these, please telephone 573 2090).

**Woodwork for the Hobbyist**
This course covers the common types of carpentry maintenance and replacements required around the Australian home. It should enable you to learn some skills to do repairs on the following:
- doors — hinges, locks, jams, architraves;
- windows — fitting, sashes, balances;
- flooring — fixing, sub-floor framing;
- fixing — concrete, asbestos, cement, panelling.
LANGUAGE PROGRAM

SUBJECT SYNOPSES

(Other synopses not available at time of printing.)

German for Beginners
The course is designed to promote a balanced development of the six basic skills of: reading, writing and speaking German; translating into and from 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 construction, words declined like definite article, words declined like indefinite article, present indicative of weak and strong verbs; use of es, das and dies with sein, formation of feminines, compound nouns.


German II
The course is designed to continue to promote a balanced development of the six basic skills of: speaking, reading, writing, translating to and from German. For this course students should have completed the basic German for Beginners at CIT or equivalent elsewhere.


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

Italian for Beginners
This is a basic introductory course of conversational and grammatical Italian held in an informal situation, with writing and reading instruction and general discussion of Italian historical, social and cultural facets.

Italian II
This course is designed to continue conversational and grammatical Italian held in an informal situation, with writing and reading instruction and general discussion of Italian historical, social and cultural facets. Students should have completed the course Italian for Beginners at CIT, or equivalent elsewhere.

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

**Modern Greek for Beginners**
This course enables students to understand and reproduce basic patterns of spoken Greek and to identify commonly used Greek words. The course will also cover some aspects of the culture of Greece. It may be used to assist intending travellers to Greece, teachers of students of Greek background and individuals who feel the need to converse and understand more about their Greek counterparts.

Tapes in a language laboratory will be used.

**Modern Greek II**
This is a practical course designed for those who want to learn to speak, read and write Greek relatively quickly and correctly. Students should have completed the course Modern Greek for Beginners at CIT or equivalent elsewhere. The material is chosen according to its usefulness in everyday life and is aimed at competence in grammar, comprehension, fluency, vocabulary and accent. Material will be chosen from various text book sources and audio tapes in a language laboratory will be used. There will also be some discussion on various aspects of Greek culture.

**Spanish for Beginners**
This course in Spanish aims 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.

**BUSINESS, INDUSTRY AND GOVERNMENT COURSES**
Special courses have been designed and conducted upon request from the business community in the past three years.

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

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

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

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

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

To discuss special programs for business, industry or for the public sector, contact should be made with the Head of Department, Short Course and Industry Programs, on 573 2536.
CIT Council
(as at 31 July 1980)

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Lisa Brodribb,
AM, MA, PhD(Melb), FAIM

VICE-PRESIDENTS
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J. Douglas Riley,
FCA

SECRETARY
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MIEAust, MMechE, MACE
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MBE, JP
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BCom(Melb), AFAIM, FIPM
Administration

DIRECTOR
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BE(Syd), AM(Michigan), ME(Melb), CEng, FTS, FHFS, MiEAust,
MRAeS, MAPsS, ABPsS

Secretary
Veronika Martens

Projects Officer
To be appointed

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BSc, PhD(Glasgow), GradDipEd, ARACi, FRIC, MACE

Secretary
Edna Baxter,
DipiPSA, FIPS

Graduate Assistant
Geoff Harrison,
BSc(Hons)(Monash)

DEPUTY DIRECTOR (TAFE)
Peter F. Cutter,
BCom(Melb), MEd(Monash), MACE

Secretary
Chrissie Coutsourelos

SECRETARY
Maurie W. Blank,
BSc, AASA, MACE

Secretary
Ann Tamhane

ACADEMIC REGISTRAR
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TPTC, BA, MEdAdmin(Hons) (New England), MACE

Secretary
Mandy Herbert

Assistant Registrar (Students)
Michael Willis,
BA, BE(Syd), MIEAust

Academic Secretary
Alan C. Young,
BA(Monash)
Assistant Academic Secretary
Paul Rodan
   BA(Hons) (WA), MA(Qld)

Admissions Officer
Philip C. Irvine,
   BBus(Public Admin) (RMIT)

Student Administrative Services Officer
Wendy Adams,
   JP

Student Loans Officer
Eve Yamouni,
   LI B(Melb)

Systems and Records Officer
To be appointed

Assistant Statistics Officer
Gary S. Todd,
   BA(Melb)

Timetable and Examinations Officer
Rhys Sweatman,
   BA(Melb)

Schools Liaison Officer
Beatrice Nielsen

Records Manager
Perviz Parakh,
   BA(Hons) (Bombay), Cert French (Geneva),
   Zert Deutsch (Heidelberg)

BUILDINGS OFFICER
Kenneth W. Raverty

Secretary
To be appointed

Projects Manager
Robin Bradnick

Resident Watchman
James Gorse

CATERING MANAGER
Alan Nicholson

Assistant
Gwenda Alleyne

FINANCIAL CONTROLLER
Alan Hamstead,
   AASA
Secretary  
Anne Gerrard

Budget Co-ordinator (Advanced Education)  
Peter Davis,  
*BBus*(VIC), AASA, MRIPA

Budget Co-ordinator (TAFE)  
To be appointed.

Systems Accountant  
Stephen Hart

Supply Manager  
John Greenwood,  
*AFAIM, AFIPSM*

INFORMATION OFFICER  
Neville Weereratne

Information Assistant  
Laurian Love,  
*BA*(Hons), *MA*(Monash)

PRINTING SERVICES MANAGER  
Margaret A. Blank

Operations Manager  
Merryl Sherriff

Graphic Designer  
Sharon Arnott  
*DipA&D*(CIT)

STAFF OFFICER  
Timothy F. Smith,  
*BA*(Monash), *BEd*(Melb)

Secretary  
Joan Smith

Appointments Officer  
Pat Hanlon

Staff Administration Officer  
Gotu Tamhane,  
*BSc*(Hons) (Bombay)

Salaries Administration Officer  
Cliff Nichol
Careers & Employment Service

CAREERS & EMPLOYMENT OFFICER
Austin W. Chapman, AAII, ACIS, CertMarketingAdmin(RMIT), BA(VIC), DipEdCounselling(RMIT), MAPsS

Student Employment Officer
Marian A. Steele, BEc(Monash), DipEd(La Trobe)

Career Information Officer
Warwick D. Slade, GradDipCareerEd(RMIT)

Student Union

UNION OFFICER
Paul Willey

SHOP MANAGERESS
Emily Lucas

Student Support Worker
(part-time)
John Milburn

Community House Co-ordinator
To be appointed

Secretaries
(part-time)
H. Evans
J. Sexton

Computer Centre

MANAGER
L. John Dann, FRMTC, BAppSc(VIC), MIEAust, AFIMA, MACS

Secretary
Kaye N. Hughes

Operations Manager
Ray E. Newland, DipBusStud(EDP)(CIT), ACIT, MACS

Senior Systems Analyst (Acting)
Stewart J. Olney, MACS
Chief System Programmer
Duncan C. Roe,
BSc(Hons) (Edin)

Systems Analysts and Analyst/Programmers
Percy B. Blackburn,
BSc(Wales), LRIC, MAIP, GradDipDP, MACS
Ron Hasan,
MACS
Robert A. van Eyk,
DipMM(The Hague), DipMarE(Utrecht), MACS, DipDP(Utrecht)
Yoong Yap,
BMEchE(NSW)

Programmers
Stephen R. Balogh,
AACS
Neil Bruerton,
DipDP
Darl J. Gawith
David J. Wilson
Stephen Wright,
DipSc

Computer Operators
Christine Arthur,
CertEDP(Operating & Coding)
Neil W. Brewster
Yvonne P. Conyers
Egils Davis
Sam Ebejer,
CertEDP(Operating & Coding)
Michael S. Efstatiadias,
CertEDP(Operating & Coding)
Malcolm Keith-Storey
Brian E. Sheehan,
CertEDP(Operating & Coding)
Robert J. Tonizzo,
CertEDP(Operating & Coding)

Punch Room Supervisor
Nancy A. Knowles

Key Punch Operators
Marilyn Kennedy
Renata Malcik
Andrea Marie
Jenny Stanley
Counselling Services

HEAD OF COUNSELLING SERVICES
Kim Wyman,
BA, DipSocStud(Melb), MAPsS

Secretary
Cheryl Kane

Reception
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Community Lawyer
John Milburn,
Certof Welf(ISW), MAIW — Welfare (Rights/Support) Officer

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Childcare
Fr. Jim Scarlett —
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