Introduction

This is the first annual report published in the name of the Chisholm Institute of Technology. Chisholm was constituted on 2 March 1982 from the former Caulfield Institute of Technology and the former State College of Victoria at Frankston.

The report takes as its theme the amalgamation and highlights some of the more significant features of the activities transferred to Chisholm from its two predecessors. It is important to note, therefore, that the contents of this report underline two aims. The first is to acknowledge the continuity of educational activities through the awards and courses of Chisholm and institutional services to the wider community of business, industry, commerce and the professions. The second is to show how in 1982 Chisholm assessed its inheritance in order to shape new directions and give new emphases to the activities and community services.

The details of the report clearly indicate the successes to date of Chisholm in achieving these aims, but, at the same time, point to those concerns still to be overcome. By the end of 1982, the concerns were becoming evident. For the most part, they derived from the commitment of Government to consolidations without a realistic and full understanding of the financial expenditure necessary to support the consolidations. The inevitable consequence for Chisholm was to divert financial reserves planned for academic developments on the Caulfield campus. Reference is made specifically to some of the effects of this diversion in the report.

The report is commended to its readers. Not only is the report a recognition of the work, commitment and dedication of the Council and staff of Chisholm but it also reflects the many invaluable contributions continuing to be made by those associated with this new college of advanced education.

P.D. Leary
Director

K.D. Green
President of Council
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The Year of Amalgamation

The Chisholm Institute of Technology was established by an Order in Council signed by the Governor in Council in 2 March 1982. The Order enabled the amalgamation of the Councils of the Caulfield Institute of Technology (CIT) and the State College of Victoria at Frankston (SCV Frankston). It also incorporated the constitution of the Chisholm Council, the governing body of the new Institute.

This formal amalgamation was the culmination of a period of uncertainty and transition. Planning until March 1982 was in the hands of a Joint Standing Committee of CIT and SCV Frankston Councils and of a Joint Chief Executive Officer, Mr Hartley Halstead. Even before the signing of the Order in Council, the decision was made that enrolments would be sought for CIT-based courses to be taught at the Frankston campus in 1982. These were the UG1 Bachelor of Business, the UG1 Bachelor of Arts (Multi-discipline), and the UG3 Associate Diploma in Ceramic Design.

Day-to-day operations during the transition were the responsibility of the Directors of the amalgamating colleges, while matters of policy affecting the operation of the amalgamation in future years remained with the CIT or SCV Frankston Councils or the Joint Executive Office. A committee representing both colleges was established to consider problems of academic staffing during the period of amalgamation.

Among a number of leadership changes during the year, the Chisholm Council in July resolved to offer the appointment of Foundation Director to Mr P.D. Leary of the United Kingdom. Mr Leary, who was selected from a range of more than 30 candidates, was at that time Assistant Chief Officer of Britain's Council for National Academic Awards. He had previously had management experience in tertiary education in Australia as Principal of the Armidale College of Advanced Education in New South Wales. He took up his Chisholm appointment in January 1983.

In addition to the challenges of amalgamation, the former CIT experienced further change in 1982 with the departure of its Technical and Further Education (TAFE) Division. This TAFE component separated from the Advanced Education Division in March to form the Holmesglen College of TAFE (Holmesglen).

However, Holmesglen subsequently continued to occupy substantial amounts of space accommodation on the Caulfield campus of Chisholm and to have access to library and computer facilities. In consequence, extensive discussions were carried out with representatives of the TAFE Board, Holmesglen, and the Victorian Post-Secondary Education Commission (the Commission), with the aim of transferring Holmesglen space accommodation back to Chisholm to allow for planned developments in the technologies, computing, and business studies, and to provide staff accommodation and general campus development at Caulfield.
The Challenge of 1982

As a result of the amalgamation, Chisholm faced the dual task of moving as quickly as possible to integrate its Caulfield and Frankston operations while maintaining its existing commitments in applied science, art, business studies, computing, engineering and technology, and the social and behavioural sciences.

Considerable success was achieved in meeting this challenge, but consolidation was not without its costs, financially and in human terms. The financial commitments entered into by Chisholm were substantial, and the various cost problems associated with diversification were further complicated when the 1981 Frankston surplus funds of $0.5 million were withdrawn from Institute use. Council was forced to direct funds from other priorities or prevent their being applied to essential developments on the Frankston campus. In addition, there could be no doubting the personal and professional problems faced by many staff members during consolidation.

Seven Schools of study were set up as the focal points of the educational program. Six were CIT Schools (Applied Science, Art and Design, Computing and Information Systems, David Syme Business School, Engineering, and Social and Behavioural Studies) and one (Education) was based on the activities of SCV Frankston in teacher education.

One of the major tasks of 1982 was the development of Chisholm's Frankston campus as rapidly as possible within the constraints set by the Commission.

This meant both the introduction of courses from the Caulfield campus to add to Frankston's existing specialisation in teacher education, and the commitment of funds to improve specialist teaching accommodation and develop academic support services, including the library and computer facilities. Substantial progress was made within the restrictions imposed by the financial constraints referred to above.

Lecturers from the Caulfield-based Schools of Art and Design and Social and Behavioural Studies, and the David Syme Business School, worked at Frankston to provide course offerings that were to increase significantly the process of extending educational and opportunities available in the Mornington Peninsula and Westernport area. Unavoidably, the establishment of the Institute's new dual-campus operations created numbers of logistical, administrative and staffing problems and fully stretched the existing accommodation. But a strong base was established for future progress, and further expansion of the range of course offerings was planned for 1983.

In other areas, discussion in Chisholm’s Academic Board and Council led to the establishment of planning priorities that were to emphasise development in business studies, applied science, technology and engineering, in conformity with Federal Government guidelines.

Within this framework, the David Syme Business School was to make a major commitment to assess the feasibility of business, technology and international business; the School of Art and Design was to explore the potential of computer graphics; and the School of Education (Frankston) was to examine the possibilities of laying greater stress on science, technology and computing in its course programs.

Technology is to be further developed through electronic data processing and related studies in the Schools of Computing and Information Systems, Applied Science and Engineering.

Consolidation of robotics, digital communications, digital technology, computer graphics and engineering is to continue to emphasise industrial applications of computing while interacting with the newer fields of technology. This did not, however, imply the neglect of other areas. Chisholm recognises, for example, that technological change carries with it the need to place technological studies within a sociological framework. In this, Chisholm's School of Social and Behavioural Studies is expected to have an important role.

The Academic Board of Chisholm met in July for the first time, after being established by Council. As well as ex-officio categories of membership, the Board has a wide range of responsibilities and by the end of the year had created a number of committees to assist it. These included the Admissions Committee, the Appeals Committee, the Courses Committee and the Higher Degrees and Research Committee.

In keeping with Chisholm's policy of devolution, Schools Boards were established to deal with matters of 'local' concern, enabling the Academic Board to devote itself to issues of broader academic relevance.

By the end of 1982, the Board had made progress in policy fields, particularly in the preparation of Chisholm regulations governing student matters, but much work remained for 1983.

The Council of Chisholm, under the Presidency of Mr K.D. Green, established committees in the areas of Building and Property, Finance, Legislation and Staffing to assist it in its management and control functions. The membership of each of these committees was augmented by one elected staff member. (See Appendix A for Council and Academic Board membership).
The Student Body

After the amalgamation, and the separation of the TAFE Division, Chisholm had a total full-time and part-time student enrolment of 5899 as at 30 April 1982.

In effective full-time numbers this was a total of 4364. In round figures, the division among the seven Schools of Chisholm was as follows: Business, 1434; Social and Behavioural Studies, 700; Engineering, 616; Computing and Information Systems, 547; Art and Design, 423; Education, 401; and Applied Science, 242. Four of these Schools had students at the Frankston campus, where the totals were Education, 401; Business, 72; Social and Behavioural Studies, 55; Art and Design, 19. All Schools with the exception of the School of Education offered courses at the Caulfield campus. The David Syme Business School, with almost 33 per cent of the total enrolments, was Chisholm's largest academic unit. (See Appendix B).

The Student unions at CIT and SCV Frankston merged to form the Chisholm Student Union after the amalgamation. Structural changes were made late in the year to allow equitable representation from both campuses. Overall, however, the year was a difficult one. The TAFE separation brought a reduction in available finances and meant that some reduction of expenditure was essential. Internally, there was a considerable turnover in office bearers, with three different presidents serving during this year. A number of changes in staff employed by the Union were also necessary.

All service areas were maintained, however, and some expansion occurred on the Frankston campus, most notably with the purchase of a bus for use by Frankston students. A dental service was planned to operate there in line with a Union policy of phasing in services that had been enjoyed by students on the Caulfield campus.

What was believed to be the first major Australian survey aimed at identifying the problems of part-time students in tertiary education was published at Chisholm during the year. Although part-time students make up 51 per cent of Chisholm's student body, there had previously been little consolidated information about their problems and needs.

As well as identifying problems, the study made suggestions for improving academic and administrative systems to assist part-time students with their work at Chisholm. A staff-student seminar was held to discuss the findings and to note areas where immediate action was desirable.
Educational Programs

Two objectives were accepted by Chisholm with regard to its Frankston operations. The first was to maintain teacher education activity at its Commission-approved level and the second to diversify the educational program on that campus.

A Special Advisory Staffing Committee (the Russell Committee) was established by Chisholm Council to deal with questions of academic staffing. Despite previous reductions in numbers of academic staff at the SCV Frankston from a peak of 96 in 1976, numbers at the beginning of the period of consolidation were still judged to be surplus to the requirements of the student quota proposed for teacher education. Of the 51 members of academic staff employed at SCV Frankston, 27 were located in the School of Education. The remaining staff were either re-located in other Schools or re-assigned to administrative units or departments. There were eight negotiated resignations.

In the area of diversification, as already noted, the Schools of Art and Design, Social and Behavioural Studies, and the David Syme Business School enrolled their first students on the Frankston campus in 1982 to complement existing programs in teacher education. Further development was proposed for 1983 and for future years. In effective full-time student numbers, planned student numbers for 1983 were as follows: Education, 350; Business, 175; Art and Design, 103; Social and Behavioural Studies, 100; and Computing, 45. The School of Applied Science examined the feasibility of offering only a first-year course at Frankston in 1984. Because of overall quota restrictions, Chisholm did not feel that the introduction of engineering courses at Frankston was viable.

New courses in 1982 were limited to one. The PG1 Graduate Diploma in Digital Communications was offered for the first time, reflecting Chisholm’s continuing development in the field of new technology. The first intake occurred in the second semester of 1982.

A PG1 Graduate Diploma in Robotics was submitted for accreditation in 1982, with final approval given in 1983. Planning was also underway for a UG1 Bachelor of Applied Science (Digital Technology) for introduction in 1984.

New course proposals continued to be processed through their approval and accreditation stages with a view to their being offered in 1983 or later. The PG2 Masters of Business courses in Banking and Finance, and Marketing are currently being developed. These specialised courses are designed to enhance the managerial capacity of aspiring senior executives in these fields. Graduates will be destined to become corporate leaders and assume high-level responsibility for the Marketing and Banking and Finance management functions.

Four existing courses were subject to Chisholm’s review procedures and were then submitted for re-accreditation by the Accreditation Board for a further period. The UG2 Diploma of Teaching (Early Childhood) was re-accredited in 1982.

A full list of advanced education courses offered by the Institute in 1982 is given in Appendix C.

Chisholm conferred a total of 1,220 tertiary awards during 1982. This total was made up of three PG2 Masters Degrees, 252 PG1 Graduate Diplomas, 604 UG1 Bachelor Degrees, 277 UG2 Diplomas, and 84
UG3 Associate Diplomas. Three conferring ceremonies for 1982 graduands and diplomates were held during the year. Two at the Dallas Brooks Hall in Melbourne in May and a third on the Frankston Campus in July. The awards were conferred by the President of Chisholm Council, Mr. K.D. Green. The occasional speakers were Dr. Clive Coogan of the CSIRO and member of Chisholm Council, and Ms. Helen Wellings of the New South Wales Electricity Commission (Dallas Brooks Hall) and Dr. Norman Curry, Director-General of Education, Victoria (Frankston).

More specific educational activities and development planning during 1982 included:

School of Applied Science: In the Department of Mathematics, the year was one of considerable change and growth. With the amalgamation, the department began to play an active role on the Frankston campus. This role included the servicing of mathematics subjects within the degrees of UG1 Bachelor of Arts and UG1 Bachelor of Business, and the provision of mathematics subjects for courses offered by the School of Education.

Overall the Department offered major studies in Pure Mathematics, Applied Mathematics and Statistics/Operations Research within the degree of UG1 Bachelor of Applied Science (Multi-discipline), major studies in Statistics in each of the degrees of UG1 Bachelor of Arts and UG1 Bachelor of Applied Science (Electronic Data Processing), a minor study in Applied Numerical Analysis in UG1 Bachelor of Applied Science (Multi-discipline).

School of Art and Design: The School's History of Art section continued to provide a wide range of courses for the three major departments in the School, covering Ceramics, Fine Art and Graphics. Lecture and study programs were designed to encourage students to develop a wide-ranging knowledge of Art History and Theory, both specific and cross-disciplinary, as a fundamental contribution to their development as creative artists and designers. Eighteen subjects were offered in 1982.

During the year, staff of the Graphic Design Department, with senior staff from the Ceramic Design Department, investigated the application of computer-aided design with particular reference to visual imaging, computer-aided typesetting and ceramic technology applications. This involved individual and group attendance at seminars, workshops and industrial demonstrations, as well as participation in an introductory short course conducted by the School of Computing and Information Systems. Art and Design acquired a microcomputer with visual colour imaging capabilities. It is being used to train students as a forerunner to the early introduction of subjects in Computer-Aided Design.

School of Computing and Information Systems: The Department of Robotics and Digital Technology installed major items of equipment to support the Digital Communication and Robotics courses. Items included a Tektronix Multiuser Microprocessor Development System and two local area networks. An IRR-6 industrial robot and an arc welding system were provided by industry for use by the department.

The Department of Electronic Data Processing initiated planning for the introduction of the UG1 Bachelor of Applied Science (EDP) at Frankston in 1983. The Department commenced servicing the data processing subjects for the UG1 Bachelor of Business (Accounting) at Frankston. High demand for existing EDP courses continued in 1982. The department also began planning for the design and installation of a graphic system for Chisholm. The system will be employed on a wide range of functions varying from engineering applications to graphic applications in the School of Art and Design. The School of Computing and Information Systems has been given the responsibility for developing this facility. The equipment itself is a Ramtek 9460 system.

David Syme Business School: The School's planning reflected an awareness that the biggest single issue confronting management in Australia is that of technological change. The School is investing substantial resources in developing programs aimed at equipping managers with the skills necessary to cope with the behavioural, technical and social consequences of these changes. In addition, the School is planning an inter-disciplinary program in the field of international management. This is a growing need as Australia becomes increasingly interdependent with the world economy.

The School's Department of Accounting has worked to accommodate the changes which require that an accountant now have a broader understanding of the economic, legal and managerial implications of business. The department has developed courses which give students a broad educational and accounting base while allowing for a second area of specialisation such as taxation, EDP, finance, marketing, economics or administration.

The Department of Banking and Finance is meeting a growing demand in the finance sector for business graduates with appropriate financial and analytical skills. The School was the first in Australia to introduce a tertiary course in Banking and Finance. The course continued to provide students with specialist subjects as well as a broad business education covering economics, law, accounting, marketing and EDP. Industry and education support has been encouraging.

The Department of Management and Secretarial Studies is meeting changing needs in this area of business with courses which include the study of entrepreneurial leadership, business and government relations, technological change, labour relations, strategic planning, office automation, communication and international management.

The School's Department of Marketing continued to offer a marketing education that is acknowledged as being without parallel in Australia. By responding to educational needs, the department has developed a variety of undergraduate and postgraduate courses in marketing and specialised marketing functions such as physical distribution and retailing. This strength has
enabled the department to recruit specialist marketing staff who are able to expose students to knowledge and experience in a way not matched elsewhere.

School of Education: The School's in-service activities were expanded in response to requests from regions throughout Victoria. A ten-day program was offered to Special Assistance Resource Teachers in the Gippsland region and many one-day programs were conducted in the Westernport and other regions. A number of programs designed to meet the needs of staff teaching in the area of computer education in primary and secondary schools were also mounted.

The range of supervisory experiences of pre-service teacher-education students was extended through participation in a number of external programs conducted by the School. These included art education programs arranged for children in local hospitals by third-year Diploma of Teaching students.

The School also conducts a recreational and education program for young adults who have suffered traumatic head injury on the roads or through work, sporting, or domestic accidents. The participants, who are often unable to work and are not acceptable in sheltered workshops because of erratic behaviour, attend Chisholm for two ten-week periods during the year. Programs encourage skills in personal development, provide an opportunity for socialization, offer a wide variety of recreational and educational options, and foster a feeling of success and self-confidence. The specific activities are planned by students in the third year of their teaching course, in conjunction with an Advisory Group.

The Channel 7 children's show, 'Shirl's Neighbourhood', visited the School of Art and Design to film a program feature on arts and crafts.
School of Engineering: As a result of negotiations between the Schools of Engineering and Computing and Information Systems, a series of elective subjects for the UG 1 Bachelor of Applied Science (EDP) has been made available to students in the School of Engineering. The Department of Electrical and Electronic Engineering will offer the EDP stream as an alternative to the presently established stream of subjects selected from the Bachelor of Business. During the year, the department organised seven short courses and seminars, attended by more than 200 non-credit students. The department also successfully tendered for a three-week full-time course in control systems theory to be organised for Royal Navy personnel.

The Department of Civil Engineering was given approval by the Academic Board for the inclusion of a project management elective stream in the UG 1 Bachelor of Engineering (Civil). The stream is to be implemented in 1983 and will provide for a unified specialisation in management with a bias towards productivity improvement. The department also conducted an integrated series of short courses related to microcomputer applications in conjunction with The Association for Computer Aided Design. Other courses were presented in conjunction with the Australian Asphalt Paving Association.

Computer-aided learning was established within this department. The learning laboratory, which is based on six Apple II microcomputers, uses software developed in the department, and is intended to provide for self-paced learning, with a bias towards deeper understanding of engineering mechanics. The department began marketing software application packages in the areas of Structural and Water Engineering.

The UG 1 Bachelor of Engineering (Industrial) received preliminary recognition in 1982 from the Institution of Engineers, Australia. The third year of the course was introduced, with specialised industrial engineering subjects in Engineering Statistics, Engineering Accounting, Quality Control and Optimisation, and Human Resources. The School’s Industrial Engineering Unit introduced personal computer equipment, developed computer-aided learning facilities, increased considerably the use of audio-visual aids for teaching, and laid the groundwork for further recognition of the course from the Institution of Engineers in 1983.

School of Social and Behavioural Studies: The School offered courses in wide-ranging fields of studies through its Departments of Humanities, Applied Psychology, and Applied Sociology, Communications, Literature, Politics and Police and Welfare Studies were covered in addition to Psychology and Sociology. Interdisciplinary activity was also emphasised with the School’s participation in double degree programs with the David Syme Business School. These provide a broadly-based business education with major studies in one specialised area of business and one of arts (psychology, sociology, communications, or political studies).

The Department of Applied Psychology added to its computing facilities a tape-based microcomputer. The department’s already extensive range of statistical programs was expanded by the development of programs for use on the microcomputer and on additional ones proposed to be purchased in 1983. These additional facilities stimulated development of computer-aided instruction programs for the teaching of psychological statistics at undergraduate and post-graduate levels.

In the field of Continuing Education, a working party reported to Council on future directions. New policy guidelines were established, with responsibility set at School level. The general co-ordination and review of the Chisholm program was given as a responsibility to the School of Education.

Continuing Education activities cover short courses, workshops, seminars and conferences. In 1982 there were 109 short courses/workshops, varying in length from one day to 30 weeks and catering for 2,500 people. Workshops were attended by over 200 non-credit students. The program was given as an example of the role of the School of Education.

In the term 'continuing education' is used in a broad sense derived from the recommendations of the report of the Commonwealth Tertiary Education Commission and based on the principles of lifelong learning and a learning society as well as the more familiar forms of professional development.

Applying skills in Civil Engineering, Water Studies, Mechanical Engineering and Fine Art (Craft).
Research and Consultancy

Members of Chisholm's academic staff continued to offer a diverse range of research and consultancy services to industry, business and government research authorities. Projects in engineering, applied science, and social science covered a wide spectrum ranging from the aerial suppression of forest fires to the investigation of the training needs of supervisors in industry. There was a major emphasis on environmental research.

The David Syme Business School maintained an innovatory role in the business community through a variety of consultancy activities and short courses.

The continued success of Chisholm in attracting external funds in these areas demonstrated that Chisholm had become firmly established as a centre of excellence in the eyes of the industrial, scientific and business communities.
The executive directors of the various Chisholm research centres met regularly during 1982 to discuss action in these areas of mutual interest and prepared a draft Policy Document on Centres of Research and Development. The concept of a research 'group' to manage inter-disciplinary activities was established. Two groups were formed.

The Fire Research Group combines the expertise on fire behaviour and modelling within the Centre for Applied Mathematical Modelling and the Water Studies Centre. The group operates under a Board of Management, and is responsible for the co-ordination and management of the CSIRO research contract 'Project Aquarius'. The Finite Element Research Group is intended as a specialist subgroup under the umbrella of two Centres—the Centre for Applied Mathematical Modelling (CAMM) and the Chisholm Institute of Technology Engineering Research and Advisory Centre (CITERAC).

Centre for Applied Mathematical Modelling: The range of mathematical expertise available within the Centre is at present centred in three major areas: assessment and modelling of aquatic ecosystems; air quality modelling; and fire related modelling. Activities are generally inter-disciplinary, examining the broad aspects of a problem rather than concentrating on the mathematical components in isolation.

Water Studies Centre: The CSIRO let a research contract to this Centre and the Centre for Applied Mathematical Modelling for two and half years from January 1982 as part of the continuing research into the feasibility of using large airtankers to drop water and/or retardant for the suppression of forest fires. A mathematical model was required to extend the results of field studies to cover a range of aircraft types, fuel types and loadings, meteorological conditions and retardants. The role of these two Centres is to develop and validate the model in conjunction with CSIRO's own fire investigations. The model will also be used in conjunction with an economic evaluation of fire suppression operations and with fire behaviour models to be developed by CSIRO and the University of Western Australia.

The Pearse Centre for Computing: In its consultancy and advisory work, and its provision of education services, the Centre has forged strong links with government, industry and the community generally. During 1982, over 40 courses were run by this Centre. These included 26 short courses, attended by nearly 1000 people, and about 14 special courses conducted on behalf of client organisations or in conjunction with other groups.

In addition to these contributions by the research centres, other projects continued to be carried out by academic departments of the Schools of Study. These projects were as follows:

Department of Applied Physics: The projects under investigation during 1982 were, first, the design and construction at Chisholm of microprocessor system for the investigation of the statistical properties of such noise environments as those caused by road traffic and 'impulsive' industrial noise. A second project was the investigation of the propagation over grasslands of 'impulsive' sound, such as that caused by the discharge of a firearm. This led to a method for the measuring of acoustic surface impedance of grasslands and other multilayer media. The third was to initiate the investigation in the glass industry of the high level of noise from impacting glass. The fourth project was to examine of the optical properties of opaque liquids and in particular the measurement of the refractive indices of opaque liquids near critical angles.

These four projects involved candidates in the Master of Applied Science program.

Dr John Davis, with Dr T.J. Hicks of Monash University, received a grant of approximately $30,000 from the Australian Research Grants Committee and another of approximately $10,000 from the Australian Institute of Nuclear Science and Engineering for the 'Neutron Scattering Studies of Magnetic Moment Distributions in Transition and Metal Alloys'. Dr Charles Osborne received $4,800 from the NSW Railways Union to investigate the effect of low-frequency noise on train drivers. Two staff members carried out further work on measurement of the density of shade produced by shade-cloths of different weaves and knits. This work has been performed for both manufacturers and users of the cloths.
Department of Applied Psychology: The department was centrally involved in interdisciplinary research with Ford Australia. The training needs of supervisors at the Car Assembly Plant, Broadmeadows, and their attitudes towards greater employee involvement, were analysed. The project was carried out under the auspices of Chisholm Institute of Technology Engineering Research and Advisory Centre. Staff from the School of Engineering and the David Syme Business School, as well as students in the Graduate Diploma in Applied Psychology, were also involved.

Department of Applied Sociology: An evaluation of a migrant program in Springvale, and needs studies for the City of Springvale and for continuing education in Portland, were undertaken. An evaluative study for the information of parents at Bennettswood Primary School was conducted. A study of government decision-making involving the Bendigo Ordnance Factory was carried out. A study of careers paths of male and female architectural graduates for the Association of Women in Architecture was also conducted.

Department of Civil Engineering: The department completed a $12,000 research contract with the Australian Engineering Building Industry Research Association. Negotiations were well advanced with the Timber Promotion Council for a $30,000 grant to undertake studies into roof framing systems. Commercial testing services were provided for a range of industries. In addition, the department conducted or participated in staff training programs for Ford.

Department of Electrical and Electronic Engineering: Staff and students designed and developed a number of technical devices. Tenders to the Computer Centre were accepted for their manufacture and supply. The department’s Industrial Scholarship scheme provided industrial training places for 22 undergraduate electrical engineering students with 20 local industries. This scheme provides an income in excess of $1,000 for students while they gain practical experience. The department joined the State Apprentices Scheme in 1980 and has had the services of an apprentice fully funded by the Victorian Government since that time. In return for this funding, the technical staff have provided a training facility for the apprentice.

Department of Mechanical Engineering: Staff and students worked on the design and production of a commuter vehicle intended to achieve petrol consumption of 200 miles to the gallon while meeting Australian Design Rules. At Amaroo Park, Sydney, an economy car from the department entered the Mileage Marathon Competition and won the university and college class for the third year in succession. The car also came second overall in the open section.

Department of Electronic Data Processing: Chisholm Directory of Manager Oriented Software was prepared during 1982. Research over six months established 500 products in the categories of software developed and marketed for managerial users. The directory includes details of the product, computer environment, vendor and extensive cross references. In addition, the development of systems development methodology suitable for decision-support systems was initiated during the year and continues in 1983. Current activity is aimed at testing the approach in a number of industrial settings including Chisholm.

Third-year students once again worked on industrial experience projects to develop computing systems for a number of industrial clients. Projects for 1982 included an administration system for a medical practice and campus bookshop, a personnel system for Caulfield City Council, and a number of software developments for the Chisholm Computer Centre.

Department of Robotics and Digital Technology: The Head of the Department presented a ‘Report on Robot Technology – with particular reference to Japan and its implications for Victoria’ to the Director-General, Ministry for Economic Development, Victoria, in April. This report had been commissioned in 1981 as part of the role of the Head of the Department as consultant on Robotic Technology to the Ministry.

School of Education: A Nurse Career Patterns Survey, examining the characteristics of entrants to nursing courses in Victoria, was completed. As a second study in the nursing field, an investigation into community nursing practice was in preparation.
Exhibitions, Conferences, Visitors

Ceramics from Chisholm were on show internationally when an exhibition of work by 48 students and 17 staff members of the Department of Ceramic Design opened in London in October. The exhibition ‘Directions’, included 250 pieces in concrete and glass as well as in clay.

The Head of the Department of Fine Art organised an exhibition of prints and drawings from four art schools in Melbourne for display in Scotland. The institutions represented were Chisholm, RMIT (Faculty of Fine Art), Victoria College (Prahran School of Art), and the Victorian College of the Arts. On a visit to Scotland, the Head of Department arranged to bring drawings and prints from four Scottish art schools for display at Chisholm and other centres in Victoria.

During the year, an effort was made to display the work of Fine Art students on a continuous basis using Chisholm’s gallery area. Exhibitions were also organised in private galleries outside Chisholm.

In November Mr Don Dunstan, Chairman of the Victorian Tourist Commission, opened an exhibition of work by exit students of the Graphic Design Department.

Staff of the School of Art and Design were also represented individually in a range of exhibitions during the year. They included Klaus Zimmer (five exhibitions, including the Meat Market Exhibition, Melbourne, and the Pacific Travelling Glass Exhibition, New Zealand), Gerhard Emmerichs (Meat Market Exhibition), Kathy Boyle (Zander Bond Gallery, Melbourne), John Neeson (Melbourne and London), and Leon Morrocco (Stuart Geistman Gallery, Melbourne).

Awards to staff and students included: Kamel Kihn Award (Michelle Lynch), Jackson Ceramic Award (Giuseppe Ranieri), Walker Award (Michael Chanter), Caltex Award (Chris Myers), Potters’ Cottage Award (Paul Davis). Second year Graphic Design students won the ‘Sky Sculpture’ competition during Melbourne’s Moomba festival. The Graphic Design Department took part in project/design work for the Frankston Hospital, the Adelaide Symphony Orchestra, Tecno International, the CSIRO, the Prahran Citizen’s Advice Bureau, the Malvern Citizen’s Advice Bureau, the Moreland Motor Hotel and Traveland, Bronwyn Hughes (water mural, Albury Regional Art Centre), Karen Bieg (mural, Oakleigh Council), and Mark Grimley (mural, Footscray Institute of Technology) were involved in commissioned work during the year.

Among a range of conferences and seminars at Chisholm during the year, the Physics Department in conjunction with the Mechanical Engineering Department, organised the Third Annual Tribology Conference. It was attended by 80 delegates from industry. The School of Education at Frankston was host for the Annual Conference of the South Pacific Association for Teacher Education. In addition, all members of the Literature Section, Department of Humanities, presented a series of lectures for HSC students of English and English Literature at the Frankston campus in September.

The Head of the Department of Robotics and Digital Technology attended the 12th International Symposium on Industrial Robots in Paris in June as the Australian representative on the Committee of National Co-ordinators for the International Symposium. He also visited key robot installations and research centres in France, Germany, Britain and the United States. In Australia, he was a keynote speaker at robotics conferences organised by the Federal Department of Employment and Industrial Relations, and the Ministry for Economic Development, Victoria.

Professor Delbert Tezar of the Centre for Intelligent Machinery and Robotics, University of Florida, was Visiting Fellow in the Department of Robotics and Digital Technology in July and August. During his stay he was keynote speaker at technology and robotics discussions organised by the Australian Innovation Corporation, the National Status of Women Committee, the Federal Department of Employment and Industrial Relations, and the Victorian Ministry for Economic Development.

The Department of Chemistry and Biology had three distinguished visitors in 1982. Professor A.R. Katritzky, Kenan Professor of Organic Chemistry, University of Florida, was at Chisholm during July and August, with the support of the Visiting Fellows Fund. He lectured at Chisholm, Melbourne University, the Australian National University, Sydney University, and the University of Queensland. In the department he examined course structures and syllabi and made suggestions for improvements in course offerings. He also provided advice on the operation of the Water Studies Centre.

Professor V.A. Vicente (University of the Philippines) was at the Institute for three weeks during August and September. In addition to taking part in discussions with staff and post-graduate students, she presented a series of lectures to final-year students on Pharmaceutical Drug Analysis. Mr C.W. George, Project Leader, Fire Technology Group, Northern Forest Fire Laboratory, Missoula, consulted with the Fire Research Group concerning Project Aquarius.

Mr Richard McLean, a leading photo-realist painter from San Francisco, was based in the Fine Art Department for two months during second semester. Financial support for the visit was provided by the Visual Arts Board of Australia and the Chisholm Visiting Fellow Committee. In the Ceramic Design Department, a special workshop in jewellery-making was conducted by a German master craftsman, Mr Herman Jungä.
'Directions', an exhibition by students and staff of Chisholm's Ceramic Design Department, opened at Victoria House, London on 22 October 1982.

Above: Sir Zelman Cowen, former Governor-General, speaks at the opening, watched by Mrs J.A. Rafferty, wife of the Agent-General for Victoria. Top right: Mr Lindsay Anderson, Head of Ceramic Design (centre), with a former Governor of Victoria, Major-General Sir Rohan Delacombe, and Lady Delacombe, at the opening. The exhibits pictured are a ceramic pot with landscape decoration by staff member Paul Davis (top left); harlequins in earthenware clay by Year 4 student Giuseppe Raneri (below left); combination sculptures in porcelain and brass by Year 4 student Colin Bowers (below centre); and space warriors in stoneware clay and porcelain by Year 4 student Michael Chanter (right).
Academic Services

Student Administration: The TAFE separation and the amalgamation provided the catalysts for a year of change. Early in 1982 decisions were required on such issues as the maintenance of the student records of the SCV Frankston, the appropriate levels of staffing for the Student Administration area on the Frankston campus, and the modification of policies and procedures to take account of the amalgamation and the emergence of the new School of Education.

Normal development work also continued. New record disposal schedules were developed and approved, including a return to the microfilming abandoned some years ago because of budget restrictions. A revision of student loan procedures was initiated and a publicity campaign was planned for later in first semester 1983, a period identified as one when students are particularly vulnerable to financial pressure.

Work begun in 1980 on the conversion of computer systems from the ICL1904A to the Data General C330, and in peak times the MV8000, was completed. The academic history system became available soon after and, with the acquisition of a letter quality printer, the production of academic records for many students back to 1977 has been automated.

Services to other areas of Chisholm were also further increased. One significant development gave School Administrative Officers access through their own terminals to parts of the Student Records System for inquiry purposes. This will enable Schools to access more up-to-date information at a reduced cost.

The enrolment system was further modified as was the admissions systems, the latter process to enable more flexible and usable reporting of statistical data to assist with future selection.

Administrative Services: Major changes took place on the Frankston campus as a result of decisions to centralise Frankston administrative services at Caulfield. The management structure of the SCV Frankston included such administrative support groups as Office of the Director, registry, finance, personnel and buildings and grounds. These services have now in the main been centralised at Caulfield. The only administrative services remaining at Frankston are those required to support the teaching program on the campus. These services are supplied by three areas: an Assistant Registrar who handles timetabling and student administration, a Maintenance Officer for day-to-day maintenance of buildings and grounds, and a Campus Manager’s office to provide general office services and to manage and co-ordinate the campus facilities.

The Library: Considerable restructuring was required as a result of the amalgamation. The Institute Library, consisting of the Caulfield Campus Library, the Frankston Campus Library, a Technical Services Division and an administrative unit was formed. Continuing efforts were made to standardise services between the two campus libraries to facilitate equality of service to all users at Chisholm.

In mid-1982, Council gave permission for the Library to investigate the purchase of a stand-alone, turnkey computer system, Contracts for ALIS (Automated Library System) developed by DataPhase of the USA, and operating on a large Data General computer (MV6000), were signed in December after evaluation of four systems. As a further part of its automation program, the library has joined the Australian Bibliographic Network (ABN) to enable it to locate library material around Australia and to purchase cataloguing records in machine readable form for ALIS.

The Library acquired and processed over 14,000 new items during 1982, of which 8,600 monographs and 133 new periodical titles were added to Frankston Library to cater for the diversification on that campus. A total of 527,000 patrons used the two libraries in 1982. In all, 186,442 items were lent.

Educational Development Unit: The establishment of Chisholm saw the integration of the Educational Development Unit of CIT and the Educational Media Unit of SCV Frankston. The resources of the two units were rationalised in order to give an improved service to teaching staff. The journal Educational Developments was launched to disseminate information to staff and to act as a focus for discussion of educational issues. Five issues were circulated.

The EDU had a major involvement in a teaching development program fostered by the David Syme Business School. Student Appraisal of Teaching, an evaluation questionnaire developed by the West Australian Institute of Technology, was pilot tested in first semester. It was subsequently adopted by this School for compulsory use by all staff.

As a joint venture with the School of Education, a training video tape for use with graduating teacher-education students was produced. The video deals with aspects of interviewing affecting the student as a prospective employee, and will be used by teacher educators in other institutions.

Seminars and workshops offered by the EDU were well supported with 233 staff members attending a total of 17 seminars and workshops. In addition, courses in computer education continued to assist staff to apply computer technology in their teaching and research.

Despite the initial disruption to the planned projects of the Unit caused by the amalgamation, the EDU also had an extensive program of media production. A total of 16 videotapes and two sound-slide programs were completed. Videotapes were also completed for a number of external bodies, including the Department of the Premier and Cabinet (Vandalism Task Force), the Frankston Hospital, the Holmesglen College of TAFE, the Frankston City Council, and the South Pacific Association for Teacher Education.
Computer Centre: Preparations were made for extension of the full range of computing services to the Frankston campus. Some services were established for second semester, 1982, from the existing Prime computer system, but this by itself was not adequate in capacity to satisfy even the limited teaching needs then introduced at Frankston. Thus, multiplexors and other communications equipment using a 48 kilobaud Telecom line between campus computer rooms were installed in November. The Frankston campus machine was then integrated with the larger Prime systems at Caulfield. This enabled the centre to progress towards its aim of providing the same computing environment and access to facilities for users on both campuses. Terminal rooms were established at Frankston, and the first member of the Centre's Frankston staff was appointed.

Counselling Services: The Careers, Counselling, Health and Welfare Services directed attention to providing or arranging for the same range of services on both campuses. There were no significant staffing changes at Caulfield, but at Frankston a full-time medical practitioner who resigned was replaced by a sessional visiting nursing sister from the Caulfield campus. Arrangements were approved towards the end of the year to appoint a permanent part-time nursing sister based at Frankston and to have a medical practitioner managing the Health Services on both campuses as a permanent part-time staff member for the first time. At Frankston, the Counselling and Health workers were moved into a central location next to the office of the Student Union on the campus. Joint arrangements were strengthened with community agencies during 1982, to develop specific services like child group care, family day care, Anglican, Catholic and Jewish chaplaincies, and a legal service.
Staffing

At different periods, Chisholm had two Acting Directors before the Foundation Director took up his duties in January 1983. Mr Hartley Halstead, who was Joint Chief Executive Officer of CIT and Frankston during negotiations for the amalgamation, later became Chisholm's Acting Director. Mr Halstead held this position until his resignation in August. Council then named Dr Tom Kennedy, previously Associate Director, as Acting Director until the end of 1982, and also appointed him to the substantive position of Deputy Director on the naming of Mr P.D. Leary as Director elect. Among other major changes during the year, Dr Graham Trevaskis, formerly Director of SCV Frankston, became Chisholm's Associate Director, and Dr Ken Tucker was appointed as Dean of the David Syme Business School. Dr Tucker, who had been Assistant Director, Bureau of Industry Economics, Department of Industry and Commerce, Canberra, took up his duties in October. Dr D.G. Ross was appointed Head of the Department of Mathematics. Mr Matrie Blank, who had been Secretary of CIT since 1977, foreshadowed his coming retirement from the beginning of 1983.

Chisholm's full-time and part-time staff in 1982 numbered 762, for an effective full-time total of 651. Academic staff numbered 419 (effective full-time 327).
and general staff 343 (effective full-time 324). (Further details are given in Appendix D).

As an interim arrangement, CIT's existing policies, procedures and practices were adopted for Chisholm following the amalgamation. Discussions involving Council, management and staff associations were initiated with the aim of codifying a set of consolidated policies for the new Institute.

Council agreed after the amalgamation to the re-establishment of the Professional Experience Program for academic and general staff. New policies and procedures were laid down, with Schools of Study being given the responsibility for decision-making about who is to participate in the program, and where and when. The Visiting Fellows program was also re-established by Council.

The following members of staff were granted special leave of absence to upgrade expertise within Australia and overseas under the PEP scheme.

**School of Applied Science:** Dr Jayanti Bapat, Senior Lecturer in Chemistry, undertook a postdoctoral fellowship at SYNTEX Research Corporation at Palo Alto, California. Mr Ian Campbell, Lecturer in Chemistry, carried out research on the taxonomy and ecology of aquatic insects at the CSIRO's Entomology Division in Canberra. Dr Imants Svalbe, Lecturer in Applied Physics visited Europe and the USA where he studied recent detector instrumentation technology. He also continued research in the design and construction of large sensitive wire chamber detectors, and looked at current developments in the interfacing of nuclear instrumentation to mini computers.

**School of Art and Design:** Mr Eugene Kupisch, Senior Lecturer in Ceramic Design, spent six months working at the Crown Lynn Pottery in New Zealand. Mr Geoff La Gerche, Lecturer in Fine Art, held discussions with American artists on the development of new ideas, and spent nine months relating these concepts to the Australian art environment. Andrew McLean, Lecturer in Fine Art, spent four months on a number of projects. He prepared exhibitions in Sydney and Melbourne, produced lithographs with Drachma Press, and developed his figure painting technique. Mr Brian Seddon, Lecturer in Graphic Design, travelled overseas for six months to study advances in information technology. He also worked with professional design establishments and visited prominent design schools. Mr Max Thompson, Senior Lecturer in Fine Art, taught at the Duncan of Jordanstone College of Art in Dundee and studied a number of British art schools.

**David Syme Business School:** Mr Paul Berger, Lecturer in Accounting, taught management accounting at the University of New Hampshire during the autumn semester, and visited other universities in the USA and Canada. His program also included visits to the American Institute of Certified Public Accountants, professional institutes in New York, Toronto and Mexico City, and attendance at the International Congress of Accountants in Mexico. Mr Michael Collins, Senior Lecturer in Marketing, examined retail practices, training and developments for six weeks in the USA and the UK. He followed this up by visiting Sydney and Adelaide to collate material on retail management principles and practices. Mr Ian Stagg, Lecturer in Management and Secretarial Studies, undertook an overseas study tour of institutes with undergraduate degrees in administration and management. He also worked with overseas research associates on environmental scanning in the health industry.

**School of Engineering:** Dr John Chamberlain, Senior Lecturer in Electrical and Electronic Engineering, spent most of his PEP with the Telecom Research Laboratories in Clayton, updating his knowledge in digital transmission systems, satellite technology and computer applications. He then visited institutions in the USA and the UK specializing in Robotics, with emphasis on industrial applications. Mr Stuart Major, Lecturer in Mechanical Engineering, spent four months studying energy resource utilisation in Australia and New Zealand, with particular reference to natural gas. Dr Alex Ormond, Senior Lecturer in Electrical and Electronic Engineering, examined energy research centres in the USA and UK. Dr Narahari Rao, Lecturer in Civil Engineering, visited Boston and Southampton to carry out research on finite element methods and the application of operations research techniques to engineering problems. He also studied problems and developments in industrial applications of operations research. Mr Geoffrey Smith, Senior Lecturer in Civil Engineering, spent three months at the Herriott-Watt University in Edinburgh, continuing work on the development of teaching methods. He then carried out research on qualitative analysis of structural behaviour with the Institute of Structural Engineering (UK) Study Group for two months. A third project was to examine the impact of teaching systems which he had designed at Chisholm and which have been sold in the UK and USA.

**School of Social and Behavioural Studies:** Dr Tony Keulemans, Principal Lecturer in Communication Studies, examined postgraduate programs in North America and Europe. He reviewed developments in future research and attended a number of conferences and seminars including the International Institute of Communications Conference. Michael Singer, Lecturer in Applied Psychology, visited the USA and UK to examine the role of professional psychologists within the family law system. He took part in research projects and studied training programs designed to prepare psychologists for this field.

**Counselling Services:** Mr Kim Wyman, Head of Community Services, continued work on a three-year research project designed to build more effective links between welfare employers, educational institutions and professional organisations representing social workers, youth and welfare workers, recreation workers and others in the field.

The Schools of Computing and Information Systems and Education drew up their respective policies and procedures for planned PEP leave in 1983.
Financial Planning

Budget planning for 1982 had to accommodate a reduced level of grants. Procedures applied by the Budget Planning Committee included the adoption of a single budget for both former institutions, thereby accepting Chisholm as one institution rather than as two individual colleges, and the acceptance of cost centre funding as instituted by the former CIT.

Planning was based on Chisholm's student quota for fields of study, the general application of a formula to achieve a degree of equity of resource allocation, and the maintenance of flexibility in assigning student quotas between campuses in response to market demands.

Measures taken to constrain expenditure on goods and services and centralised costs included the installation of energy management systems to supervise Institute energy use, increased use of computing resources in supervising and assessing expenditure trends, and the extension of the 'user pays' concept to a wider range of services.

Council accepted to budget for a deficit of $750,000 to be contained by the end of 1982-84 triennium. This arose from a reduction of $795,000 in 1983 in the Chisholm grant (based on 1982 dollars) and the loss of anticipated 1981 grant savings of more than $500,000 from the SCV Frankston. (Statements of accounts are attached as Appendix E).

In the awareness that Federal Government funding support for tertiary education is declining in real terms, Council agreed to establish a Development Office through which Chisholm could compete more effectively for funds from non-traditional sources. Chisholm already attracts significant amounts of money through a number of activities, but it is viewed as essential that Chisholm have a formal structure for such fund-raising operations. The office will assist in entrepreneur activity by Schools, departments and research centres, and also provide a liaison function to ensure that Chisholm capitalises fully on available opportunities.

Space Accommodation

No capital works were approved for funding or scheduled for commencement or continuation on either campus.

The main efforts associated with accommodation were spent on enhancing the Frankston campus space to prepare it for the process of diversification of the educational program. For example, specialist facilities were created for activities in Art and Design (ceramics, cold glass, gold and silversmithing, drawing design studio), Applied Science (physics and chemistry laboratories), Business Studies (accounting laboratory) and Liberal Studies (applied science laboratory and language laboratory). Further modifications were undertaken for Education facilities, especially those in art education.

The projects for the Caulfield campus continued to be the creation of facilities for new academic developments (for example, Robotics), re-cycling existing accommodation for more specialist teaching activities (for example, computer terminal rooms) and the general refurbishing and maintenance of buildings.

Agreements were reached with Holmesglen on space accommodation on the Caulfield campus of Chisholm. It is noted that Holmesglen will be vacating the Caulfield campus by the end of 1984 and this is expected to provide relief from the pressures on accommodation building up in 1983 and 1984.

The Computer Centre has expanded its facilities for users on both campuses.
The 1985-87 Triennium

In November 1982, the Institute submitted to the Commission its submission for the 1985-87 triennium. The submission incorporated strategies guiding academic developments, student loads, proposed new courses and academic developments, and the effects of amalgamation.

The submission noted that Chisholm recognised its responsibilities in creating a strong, multi-disciplinary operation on the Frankston campus. However, there would need to be a significant building project at Frankston because the campus would reach its capacity in student numbers before 1987. Consolidation problems expected still to be outstanding in the 1985-87 triennium would be those related to equipment, space usage and requirements, and course developments.

The Institute emphasised its awareness of the pressures bearing on the college sector and its knowledge that Chisholm's reputation would depend increasingly on its own initiatives. The submission recognised that there was a need for a substantial reshaping of research and consultancy activities, and noted that employers would demand a more comprehensive continuing education program as the pace of technological and social change continued to accelerate. New building projects would be difficult to initiate, but significant funds for capital programs were required to permit the refurbishing of sub-standard teaching and research accommodation at the Caulfield campus.

Several important strategies guided planning for the triennium. These included the integration of academic developments across both campuses and the diversification of these developments at Frankston. There would be extension of and modification to awards and increases in student loads in areas considered significant by the Commonwealth Tertiary Education Commission. The submission also emphasised the need to maintain balance between the fields of sciences and the technologies on the one hand and those of business, education and liberal studies on the other. The need for inter-disciplinary studies as a means of meeting the challenge of rapid technological and social change was recognised.

Council in 1982 discussed the promotional needs of Chisholm in an awareness of the need to ensure that the name and substance of Chisholm were known in the wider community and that a positive corporate image be projected. Council identified a number of priorities. With the assistance of an external public relations consultant, a committee under the Acting Director discussed long-term promotional strategies and also directed a short-term campaign aimed at making the name Chisholm more widely known before the period of new enrolments for 1983. In June, Council approved a design for a Chisholm logo to appear on all Institute publications, stationery and advertising.

Professional Services

Council expresses its appreciation of the work of the Institute's staff, and of the contributions made by many outside individuals and organisations, during this difficult year of change and consolidation.

Above: Checking samples in the Chemistry laboratory.

Left: Work on the ceramic water wall for the Albury Regional Art Centre.
Appendix A

COUNCIL AND ACADEMIC BOARD MEMBERSHIPS 1982

CIT and SCV Frankston

(On 8 December 1981 the Governor in Council established a common membership for the governing bodies of the Caulfield Institute of Technology and the SCV Frankston to serve until the formal amalgamation on 3 March 1982).

N. Ford, LLM, MAdmin (Chairman).
L. Brodribb, AM, MA, PhD, FAIM.
W. Craven, MSc, CEng, FI MechE, MI MechE. From 2 February 1982.
A. Crook, BA(Hons), MA, MAPsS.
P. Freadman, BA(Hons). To February 1982.
T. Haslett, MA, DipT, MEdAdmin.
T.L. Parr, AO.
D.H. Peebles.

CHISHOLM COUNCIL (FROM 3 MARCH 1982)

President
K.D. Green, CB, OBE, ED, BCE, FICE, FIE Aust, FASCE, FAIUS, FTS, FRIPA.

Members
A.C. Bailey, MA, LLB, Grad Dip Accounting and Finance, Barrister and Solicitor of the Supreme Court of Victoria;
R.A. Balmford, LLB, MBA, Barrister and Solicitor of the Supreme Court of Victoria.
P. Boyce,
A.J.E. Campbell, MBE, Dip App Chem, ARAC, AFAIM, MIPMA,
C.K. Coggan, MSc, PhD, FAIP, FRSA.
A.E. Crook, BA(Hons), MA, MAPsS.
H.M. Davies, BA(Hons), MA, AAIM, MIPMA, MA ITD.
T. Haslett, MA, Dip T, MEdAdmin.
S. Hill.
T. Kennedy, BSc, PhD, Grad Dip Ed, CChem, FRSC, AFAIM, ARACI, MAIMM, MACE, (Acting Director.) From 11 August 1982.
I. Lennon, BCom, BEd.
W.L. Morton, BCom, MAPsS.
D.H. Peebles.
P. Ramler, DipBus, AAIM, ACIT.
R.G. Ritchie, BE, Dip Ed, MAdmin, FIE Aust, MI MechE, MACE.
J. Ryan.
R.J. Snedden, BA(Hons), LLB, BEd, MACE.
F.R. Trinker, MB, BS, BSc, PhD, FRACMA.
T.D. Walker, Dip T.
W.G. Walker, AM, MA, PhD, FACE, FCCEA, HonFIEA, HonFACEA, FAIM.
L.E. Ward, BAgSc, BA, MSc, PhD.
COMMITTEES OF CHISHOLM COUNCIL

Buildings and Property
Dr L. Ward (Chairman)
Mr M. W. Blank
Mr A. P. Bow
Mr P. Boyce
Mr A. J. E. Campbell
Mr H. W. Farey
Mr K. D. Green
Mr H. J. Halstead (July-August)
Dr T. Kennedy (August-December)
Mr P. Ramler
Dr G. A. Trevaskis
Dr F. Trinker

Finance
Mr A. C. Bailey (Chairman)
Mr M. W. Blank
Mr P. Boyce
Mr K. D. Green
Mr H. J. Halstead (July-August)
Mr A. W. Hamstead
Mr J. R. Harris
Mr T. R. Haslett
Dr T. Kennedy
Mr I. Lennon
Mr W. L. Morton
Dr K. A. Tucker
Prof. W. G. Walker

Legislation
Mrs R. A. Balmford (Chairman)
Mr A. C. Bailey
Mr M. W. Blank
Mr R. Edwards
Mr K. D. Green
Mr H. J. Halstead (July-August)
Dr E. W. Hemingway
Dr T. Kennedy (August-December)
Mr R. G. Ritchie
Mr J. Ryan
Mr C. Sleight
Dr G. A. Trevaskis

Staffing
Mr D. H. Peebles (Chairman)
Mr M. W. Blank
Mr C. Coogan
Mr A. Crock
Ms H. Davies
Mr K. D. Green
Mr H. J. Halstead (July-August)
Mr S. Hill
Dr T. Kennedy
Mr J. Ryan
Mr P. K. Rodan
Mr R. J. Snedden
Dr H. J. Williamson
**ACADEMIC BOARD**

**Ex-officio members:**

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Acting Director, Mr H.J. Halstead</td>
<td>(Chairman: July to August 1982)</td>
</tr>
<tr>
<td>Acting Director, Dr T. Kennedy</td>
<td>(Chairman: September to December 1982)</td>
</tr>
<tr>
<td>Deputy Director, Dr T. Kennedy</td>
<td>(July to August 1982)</td>
</tr>
<tr>
<td>Associate Director, Dr G.A. Trevaskis</td>
<td></td>
</tr>
<tr>
<td>Dean, School of Applied Science, Dr E.W. Hemingway</td>
<td></td>
</tr>
<tr>
<td>Dean, School of Art and Design, Mr H.W. Farey</td>
<td></td>
</tr>
<tr>
<td>Dean, School of Computing and Information Systems, Dr T. Pearcey</td>
<td></td>
</tr>
<tr>
<td>Dean, David Syme Business School, Mr J.G. Onto (Acting)</td>
<td>(July to September 1982)</td>
</tr>
<tr>
<td>Dean, School of Engineering, Mr T. Brownlee</td>
<td></td>
</tr>
<tr>
<td>Dean, School of Social and Behavioural Studies, Mr R.J. Snedden</td>
<td></td>
</tr>
<tr>
<td>Academic Registrar, Mr D. Muffet</td>
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<tr>
<td>One person elected by each School</td>
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</tr>
<tr>
<td>School of Applied Science, Mr R.F. Pugh</td>
<td></td>
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<tr>
<td>School of Art and Design, Mr J. Wingate</td>
<td></td>
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<tr>
<td>School of Computing and Information Systems, Mr G.B. Maynard</td>
<td></td>
</tr>
<tr>
<td>David Syme Business School, Mr D. Mahoney</td>
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<tr>
<td>School of Education, Mrs E. Mellor</td>
<td></td>
</tr>
<tr>
<td>School of Engineering, Mr J.O.C. Walker</td>
<td></td>
</tr>
<tr>
<td>School of Social and Behavioural Studies, Mr C. Cameron</td>
<td></td>
</tr>
<tr>
<td>Student appointed for the calendar year by the Student Union Board:</td>
<td></td>
</tr>
<tr>
<td>Mr C. Donald</td>
<td></td>
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<tr>
<td>Council member appointed by Council:</td>
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</tr>
<tr>
<td>Mr W.L. Morton</td>
<td></td>
</tr>
<tr>
<td>Co-opted persons (2):</td>
<td></td>
</tr>
<tr>
<td>Vacant</td>
<td></td>
</tr>
<tr>
<td>Secretary: Mr P.K. Rodan</td>
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Appendix B

CHISHOLM STUDENT ENROLMENTS IN ADVANCED EDUCATION
AS AT 30 APRIL 1982

Table 1: EFTS by Schools of Study

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<tr>
<th>School</th>
<th>EFTS</th>
<th>% of Total</th>
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<tbody>
<tr>
<td>David Syme Business School</td>
<td>1434.25</td>
<td>32.9</td>
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<tr>
<td>Social &amp; Behavioural Studies</td>
<td>700.00</td>
<td>16.1</td>
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<tr>
<td>Computing and Information</td>
<td>616.00</td>
<td>14.1</td>
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<tr>
<td>Systems</td>
<td>547.25</td>
<td>12.5</td>
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<tr>
<td>Art &amp; Design</td>
<td>423.50</td>
<td>9.7</td>
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<tr>
<td>Education</td>
<td>401.00</td>
<td>9.2</td>
</tr>
<tr>
<td>Applied Science</td>
<td>42.00</td>
<td>1.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4364.00</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2: EFTSU by Branches of Learning

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<tr>
<th>Branch of Learning</th>
<th>EFTSU</th>
<th>% of Total</th>
</tr>
</thead>
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<tr>
<td>Humanities</td>
<td>91</td>
<td>2.1</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>414</td>
<td>14.2</td>
</tr>
<tr>
<td>Education</td>
<td>302</td>
<td>7.0</td>
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<tr>
<td>Science</td>
<td>244</td>
<td>6.6</td>
</tr>
<tr>
<td>Maths &amp; Computing</td>
<td>91</td>
<td>2.1</td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td>43</td>
<td>1.0</td>
</tr>
<tr>
<td>Engineering</td>
<td>42</td>
<td>1.0</td>
</tr>
<tr>
<td>Business &amp; Law</td>
<td>1297</td>
<td>30.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4326</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: With the Equivalent Full-Time Students (EFTS) measure, which weights a full-time student at 1.0 EFTS and a part-time student at 0.5 EFTS, course enrolments are allocated to Fields of Study, which correspond to the current Chisholm Schools. The Equivalent Full-Time Student Unit (EFTSU) measure subject enrolments. Every subject is weighted such that the sum of a full-time student's subject weights will equal 1.0 EFTSU. Subjects are grouped into Branches of Learning, which correspond only superficially to Fields of Study and Chisholm Schools. Table 1 and Table 2 are therefore not strictly comparable, although this will not normally be obvious when they are reported in their standard formats.
Appendix C

THE FOLLOWING COURSES, LISTED BY FIELDS OF STUDY, WERE OFFERED BY CHISHOLM IN 1982

Art & Design
PG 1 Ceramic Design
    Fine Art
    Graphic Communication
UG 1 Ceramic Design
    Fine Art (including Craft)
    Graphic Communication
UG 2 Fine Art
    Graphic
UG 3 Ceramic Design

Applied Science (Multi-disciplinary)
PG 2 Masters
PG 1 Applied Numerical Analysis
    Applied Polymer Science
    Water Science
UG 1 Multi-disciplinary

Applied Science (Computing)
PG 2 Masters
PG 1 Computing and Information Systems
    Data Processing
    Robotics
UG 1 Combined Degree (Business-Accounting)
    Digital Technology
    EDP

Business
PG 2 Masters
PG 1 Accounting and Finance
    Agribusiness
    Marketing
    Physical Distribution Management
    Secretarial Studies
UG 1 Accounting
    Administration
    Finance and Banking
    Marketing
    Secretarial
UG 3 Marketing
    Private Secretarial Practice (Legal, Medical)
    Retail Management
UG 1 Combined Degree (Applied Science
    [Computing] and Arts)

Education
PG 1 Art Education
    Children's Literature
    Outdoor Studies
UG 1 Bachelor of Education
UG 2 Early Childhood
    Primary

Engineering
PG 2 Masters
PG 1 Highway and Traffic Engineering
    Industrial Engineering
    Process Computer Systems
    Process Plant Project Engineering
    Tribology
UG 1 Civil
    Electrical
    Industrial
    Mechanical
UG 2 Mechanical (6-year PT)

Liberal Studies
PG 2 Masters
PG 1 Applied Psychology
    Community Education
    Welfare Administration
UG 1 Multi-disciplinary
UG 3 Police Studies
    Welfare Studies
UG 1 Combined Degrees (Business)
# Appendix D

**CHISHOLM STAFFING AS AT 30 APRIL 1982**

## Table 1: Teaching Staff by Schools of Study

<table>
<thead>
<tr>
<th>School</th>
<th>Teaching Staff (EFTS)</th>
<th>% of teaching staff</th>
<th>% of total students</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Syme Business School</td>
<td>82.33</td>
<td>25.2</td>
<td>32.9</td>
</tr>
<tr>
<td>Applied Science</td>
<td>47.87</td>
<td>14.6</td>
<td>5.5</td>
</tr>
<tr>
<td>Art &amp; Design</td>
<td>43.06</td>
<td>13.2</td>
<td>9.7</td>
</tr>
<tr>
<td>Social &amp; Behavioural Studies</td>
<td>42.10</td>
<td>12.9</td>
<td>16.1</td>
</tr>
<tr>
<td>Engineering</td>
<td>41.53</td>
<td>12.7</td>
<td>14.1</td>
</tr>
<tr>
<td>Education</td>
<td>41.32</td>
<td>12.6</td>
<td>9.2</td>
</tr>
<tr>
<td>Computing &amp; Information Systems</td>
<td>28.84</td>
<td>8.8</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>327.05</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

## Table 2: General Staff by Areas of Employment

<table>
<thead>
<tr>
<th>Non-teaching Area</th>
<th>EFTS staff</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Administration (Includes Deans)</td>
<td>83.21</td>
<td>26</td>
</tr>
<tr>
<td>Academic Departments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Admin. &amp; Clerical Support</td>
<td>48.75</td>
<td>15</td>
</tr>
<tr>
<td>- Technical Support</td>
<td>50.44</td>
<td>16</td>
</tr>
<tr>
<td>Library</td>
<td>43.80</td>
<td>13</td>
</tr>
<tr>
<td>Buildings &amp; Grounds</td>
<td>29.50</td>
<td>9</td>
</tr>
<tr>
<td>Computer Centre</td>
<td>25.00</td>
<td>8</td>
</tr>
<tr>
<td>Business Undertakings</td>
<td>20.87</td>
<td>6</td>
</tr>
<tr>
<td>Educational Development Unit</td>
<td>13.00</td>
<td>4</td>
</tr>
<tr>
<td>Student Services</td>
<td>9.20</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL NON-TEACHING EFTS</strong></td>
<td><strong>323.77</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
# Appendix E

## EXTRACT FROM FINANCIAL STATEMENTS FOR YEAR ENDED 31 DECEMBER 1982

### RECURRENT ACCOUNT - ADVANCED EDUCATION

#### STATEMENT OF INCOME AND EXPENDITURE

<table>
<thead>
<tr>
<th>Income</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Grants received</td>
<td>16,241,000</td>
</tr>
<tr>
<td>Add prepaid Recurrent Grant</td>
<td>4,910,00</td>
</tr>
<tr>
<td><strong>TOTAL RECURRENT GRANT</strong></td>
<td>21,151,000</td>
</tr>
<tr>
<td>TEC Appropriations 1980</td>
<td>284,000</td>
</tr>
<tr>
<td>TEC Appropriations 1981</td>
<td>142,283</td>
</tr>
<tr>
<td><strong>Interest on Investments</strong></td>
<td>1,123,939</td>
</tr>
<tr>
<td><strong>TOTAL INCOME</strong></td>
<td>22,701,222</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries Teaching Staff Full-Time</td>
<td>9,082,592</td>
</tr>
<tr>
<td>Salaries Teaching Staff Part-Time</td>
<td>555,795</td>
</tr>
<tr>
<td>Salaries Support Staff</td>
<td>1,619,862</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>607,549</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>1,141,126</td>
</tr>
<tr>
<td>Practice Teaching Fees</td>
<td>107,851</td>
</tr>
<tr>
<td><strong>Library</strong></td>
<td><strong>13,114,775</strong></td>
</tr>
<tr>
<td>Salaries</td>
<td>851,463</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>49,655</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>605,758</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>358,851</td>
</tr>
<tr>
<td><strong>TOTAL EXPENDITURE</strong></td>
<td><strong>18,657,727</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Computer Centre</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>561,110</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>31,308</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>465,374</td>
</tr>
<tr>
<td><strong>Educational Development Unit</strong></td>
<td><strong>1,057,792</strong></td>
</tr>
<tr>
<td>Salaries</td>
<td>241,382</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>13,436</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>41,638</td>
</tr>
<tr>
<td><strong>TOTAL EXPENDITURE</strong></td>
<td><strong>23,619,504</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Services</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>283,950</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>13,981</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>27,022</td>
</tr>
<tr>
<td><strong>General Administration</strong></td>
<td><strong>324,953</strong></td>
</tr>
<tr>
<td>Salaries</td>
<td>1,798,771</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>113,448</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>2,332,495</td>
</tr>
<tr>
<td><strong>Building Maintenance</strong></td>
<td><strong>4,244,714</strong></td>
</tr>
<tr>
<td>Salaries</td>
<td>409,100</td>
</tr>
<tr>
<td>Ancillary Charges</td>
<td>30,032</td>
</tr>
<tr>
<td>Cleaning</td>
<td>309,396</td>
</tr>
<tr>
<td>Light, Power and Fuel</td>
<td>306,998</td>
</tr>
<tr>
<td>Other Expenditure</td>
<td>365,314</td>
</tr>
<tr>
<td><strong>Continuing Education</strong></td>
<td><strong>5,145</strong></td>
</tr>
<tr>
<td>Payroll Tax Surcharge</td>
<td>165,163</td>
</tr>
<tr>
<td>Staff Furlough</td>
<td>1,123,939</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td><strong>1,289,102</strong></td>
</tr>
</tbody>
</table>

### Surplus/(Deficit) for year

- Surplus/(Deficit) for year: $(918,282)$
- Accumulated Surplus/(Deficit) previous year: $1,172,674$
- Prior Year Adjustments: $(576,625)^*$
- Accumulated Surplus/(Deficit) 1982: $(322,233)$

*(Reduction in Surplus as agreed TEC)*