ARMS OF THE UNIVERSITY

The principal elements incorporated in the arms of the University are the blue of the sea, the gold of the sand and the red of the Illawarra flame tree. The open book often used for educational institutions has also been included.

The blazon is: “Azure an open book proper bound gold on a chief wavy or three cinquefoils gules.”
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The University of Wollongong Calendar 1983

There are 6 volumes of the Calendar:

The University of Wollongong Calendar 1983 Volume I
Legislation

The University of Wollongong Calendar 1983 Volume II
Faculties Sector
Undergraduate Handbook

The University of Wollongong Calendar 1983 Volume III
Institute Sector Handbook

The University of Wollongong Calendar 1983 Volume IV
Faculties Sector
Postgraduate Handbook

The University of Wollongong Calendar 1983 Volume V
Annual Report - 1982

The University of Wollongong Calendar 1983 Volume VI
Statistics Report
The Honourable R.J. Mulock, M.P., Minister for Education

In accordance with section 34 of the University of Wollongong Act 1972, the Council of the University has the honour to present to you the Annual Report of the proceedings of the University for the period 1st January to 31st December, 1982.

Chancellor

Vice-Chancellor
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THE VICE-CHANCELLOR'S STATEMENT

1982 was the first year of a new triennium, a triennium in which the University was expected to increase its enrolments. It was also the year in which amalgamation with the Wollongong Institute of Education was formalised. Faced with the problem of coping with a period of severe limitations on resources, the University had to adopt new budget strategies so as to keep the budget within a minimum deficit. With the introduction of prospective funding arrangements, it was also necessary to make sufficient provision for non-supplementation of wages and salary increases. The resource situation was aggravated by the lack of capital assistance for buildings and the fact that the cost of amalgamation had to be met from existing resources.

Although it was a difficult year, the University continued with its development of new courses and academic programmes; research policy was reviewed with a view to concentration of effort without damaging the fundamental research undertaken by individual staff. The University's research efforts in 1982 are detailed later in this report with the University continually encouraging support for research associated with technological change. This is seen as particularly important for the future prosperity of the Illawarra region.

The changed situation called for improvement in the University's planning mechanism. To this end, the Planning and Development Committee was established and other committees either reconstituted or rationalised. Several reviews of activities were completed; for example, the review of the Centre for Multicultural Studies was completed and Council's response to the review was to strengthen the activities in this area.

The necessary consequences of amalgamation were proceeded with while these academic and research activities continued. The June meeting of the Council was the first such meeting where the Council of the former Wollongong Institute of Education and the University met as the University Council. In December a newly elected Council met for the first time. The latter Council was larger than the "pre-amalgamation" Council of the University. An Interim Committee Structure for the academic governance of the University was also established. A single set of admission and matriculation regulations covering degree programmes in the University was approved. There was also established a single Academic Review Committee to deal with student matters from both the Institute and the Faculty sector. At the end of the year there still remains a lot to be done, but our achievements have been quite substantial.

The Council of the University also recognised its special role of bringing an awareness of public issues to the University. In August a Working Party was established to review equal opportunity within the University. The Working Party was requested to review policy and propose measures which will promote more equal opportunities at the University. The Working Party's task is specifically to collate and monitor full statistical and other information relevant to the status of women within the University with a view to raising awareness of university staff and promoting the concept of sexual equality. It aimed at encouraging representation of women on key university committees especially those concerned with appointment, tenure, promotion and research grants. It also aimed at developing measures for countering the career disruption and disadvantages experienced by women involved in child bearing and raising and finally to develop measures aimed at enhancing the career prospects for women generally. The Working Party is looking at both academic staff and general staff areas and first met in November, 1982.

The Working Party has collected some statistical information but is also committed to looking at attitudes to equal opportunity to understand the level of awareness within the University. Council also accepted a broad policy statement in order to cope with difficulties faced by many persons intending to undertake university studies. Council decided to give child care a high priority and 'Kid's Uni' was given further encouragement and support.

The Illawarra Region's concerns were shared by the University, which in its own way, attempted to contribute to a better understanding of those problems and resolution of the more difficult issues. In keeping with this approach, the
University celebrated University Day on 13th August, 1982, the anniversary of the first meeting of the Chancellor’s Council in 1975. The successful series of lectures which have been given to mark this occasion was continued. The theme of the evening’s talk was “The Future of Wollongong”. Several speakers participated including Mr. J. Clark, General Manager, Australian Iron and Steel, Mr M. Booth, General Manager of Metal Manufacturers Ltd and Mr. G. Roberts, President of the Port Kembla and South Coast Branch of the Federated Ironworker’s Association. A panel discussion involving all three speakers followed.

Friends of the University developed further, with its research consulting showing a substantial increase over its first year of operation. In addition, the University as in previous years, ran a successful Schools’ Day to assist over 800 senior high school students in making their choices about tertiary education. The University’s community interests go beyond this region. Its staff have been involved in state, national and international ventures.

In conclusion, I would like to thank the staff of the University and the Institute and the members of the previous two Councils of the institutions for their support in bringing about the achievement of amalgamation in 1982 to produce a University unique in the state. Throughout the nation, the Wollongong experience is being watched with interest as we continue to progress in the fields of teaching, scholarships and research and provide direction and leadership in difficult economic times.

Ken McKinnon,
Vice-Chancellor.
ACADEMIC ACTIVITIES

FACULTY OF COMMERCE

ACCOUNTANCY

As a consequence of the increased enrolment at 100 level in 1981 the student load of the Department continued to grow, increasing to 270 EFTS at 30th April, 1982. Overall the pass rates appear satisfactory. The Department has come to accept that, given the profile of our first year students, there is limited scope for improving pass rates further. An attrition rate of 8.7 is obviously high in relation to the University's average of 3.8 and that for the Commerce Faculty of 2.9. The Department has examined this attrition rate closely and has to accept a pass rate of between 55 and 60% for the 100 level students. In 1982 it was, in fact, at the top of the range.

Nearly all graduates, apart from those continuing with study, have obtained employment.

The Department participated in the University's Year 12-Introduction Day. Copies of a special edition of the Departmental Handbook were made available to students and were later forwarded to school principals and careers advisors.

ECONOMICS

In many respects 1982 was one of the most successful years in the history of the Department. Enrolments increased by over 13 per cent to reach record levels. The Department grew nearly twice as fast as the University and accounted for 7.9 per cent of total University enrolments.

The overall pass rate for the Department was near the average for both the Faculty of Commerce and the University. The Department's attrition rates were well below those of the Faculty and the University for all subject levels. This may be a reflection of the fact that students seem to be reasonably content with the Department's offerings and teaching methods. The Department also offers special remedial lectures and allocates tutorials according to students' background and predicted success.

The Department organised and hosted a H.S.C. Economics Conference for high school students preparing for their examination. The Conference attracted 135 students from 14 high schools. It is anticipated the conference will be repeated annually. The Department also participated in Year 12-Introduction Day by providing a film followed by a discussion on Economics as a discipline. The Department's curriculum and teaching philosophy was also explained.

A plan to increase the number of higher degree students was initiated in 1982. This included the preparation and world-wide distribution of a handbook describing the Department's Postgraduate Programme in Development Economics.

Research Theses in Progress

PhD

Tax progressivity in Australia.
The investment decision in changing industrial conditions.
The impact of education on agricultural productivity in developing nations.
An empirical study of the building industry.
The choice between bus and car in Wollongong.

MCom

Sugar cane as an energy source.
An enquiry into factors affecting the extraction rate in coal mining.
The political economy of government expenditure.
Mining and economic development.
There were no major course changes during the year, however several subjects were renamed, amalgamated or revised.

Attrition rates are considered satisfactory. Students undertaking degree courses in Civil and Mining Engineering are required to pass 57 subjects during the course. Students can proceed by passing by subject and not by year, therefore individual pass rates bear little consequence. However, for the total enrolments in all undergraduate subjects a pass rate of 81.7 per cent was obtained.

Equipment

Major equipment purchases during the year included the following:

- Concrete laboratory equipment.
- Vibration testing equipment.
- Mining laboratory equipment.
- Sound measuring equipment.
- Photogrammetry equipment.
- Computing equipment.

Research Theses in Progress

PhD

- A technique to resolve road accident problems.
- Progressive failure in slope stability analysis.
- Foundation and earthwork evaluation.
- Analysis of excavated slopes - multi-stage finite element approach.
- An analysis of road traffic noise - Illawarra Region of N.S.W.
- Hydrodynamic forces on off-shore structures by laboratory study and numerical method.
- The development of physical models and their application to the prediction of strata behaviour near mine openings.
- Subsidence and strata control in the Sydney coal basin.
- Analysis of urban transport system.
- Non-linear analysis of box-type structures.
- Behaviour of cracked concrete multi-cellular bridges under repeated loading.

ME

- Urban drainage systems.
- Stability of slopes in open cut mines.
- Computer simulation of rock extractions.
- Time variable rainfall-runoff modelling.
- Experimental determination of head losses in stormwater drainage systems.
- Methane drainage in long wall mining.
- Comparison of design procedures for single flood detention basins.
- Noise characteristics on roads.
- Gas removal prior to mining.
- Longwall shearer picks.
- A study of some structural vibration problems.
- Earthquake energy absorbers.
- Re-use of industrial and domestic wastewater.
- Investigation of the load-bearing capacity of externally clad and reinforced concrete slabs.
- Hydraulics of road culverts.
- Coalwaste in road construction.
- Delays at railway level-crossings.
Enrolment numbers in the two new courses which were introduced in 1982 and which lead respectively to a Bachelor of Engineering in Computer Engineering and to a joint Bachelor of Mathematics/Bachelor of Engineering in Electrical Engineering have been gratifying. The first year of all courses offered by the Department is identical but about 20 of the 85 first year students have indicated their intention of taking the Computer Engineering strand while another 6 will undertake the joint degree.

Facilities

A partial response to requests for additional space resulted in the erection of a demountable building, where up to 12 fourth year students may have individual benches for the completion of their fourth year projects. The new building includes a periodicals library, blackboard, noticeboard and amenities.

Research Theses in Progress

PhD

Realisation of null steering antenna.
Single frame cascade induction machines: analysis and design.
Twin rotor disc type induction machines.

ME

Glider control and supervisory equipment.
Power transistor-switching devices.
Investigation of microwave holography.
A computer controlled infra-red sensing system.
Automatic adaptive drafting programme for a universal slabbing mill.
Electrical characteristics of a pilot scale electrostatic precipitator.
Photographic measurements of stratospheric aerosols.
A study of harmonic generation by and fault occurrence in static converters.
High bit rate microwave data linker.
Effect of time delays on control system stability.

MECHANICAL ENGINEERING

There were no fundamental changes in the direction or structure of the Department's teaching programme. The following subjects were presented for the first time in 1982, Coal Technology I and II, Professional Orientation and Coal Energy Technology I and II.

The Department in association with the Illawarra Regional Committee of the Water Research Foundation of Australia conducted an essay competition for Year 11 students in high schools in the Illawarra and Shoalhaven Regions. Several schools were visited by the Department and the prize winners visited the University.

Equipment

Major equipment purchases during the year included the following:

Sieve shaker.
Graphics boards.
Air compressor.
Npise dose meter.
Portable Terminal plus Bubble Memory.
Model VI2 profile projector.
Tasman Mini Data Logger.
Pressure transducers.
Hard copy unit plus 8 pen retrofit kit.
Thermocouple meters.
Coulter microprocessor particle size analyser.
Digital cartridge tape recorder.
Vibrometers.
Pye eddy current drive motor.
Beam splitter, rotating mount for beam splitter and beam expander.
Splitter and beam expander.
Oval pet valves and mechanical counters.
Photo-multipliers and Gencom resistor network.
Model 1980 B Counter system, 9117 focusing lens and beam spacer.
Phase indicator.

Research Theses in Progress

PhD

Flow properties of bulk solids.
The optimum design of spur and helical gears to BS 436.
Pneumatic conveying of pulverized bulk solids.
On self-tuning regulators.
The studies of flow separation in aerodynamics.
Department of numerical techniques for two-dimensional fluid flow with flexible boundary.

ME

The application of finite element analysis to problems of multi-dimensional heat conduction with non-linear boundary conditions.
Fabric filters for air pollution control.
The edge effects of hot-dip metallic coatings on steel strip.
Factors affecting the recovery of benzene from coke ovens gas.
The design and performance of gravitational thickeners and clarifiers.
The prediction of bin wall loaders.
A comparison of non-linear and linear models of a steam generator.
Vibrational problems.
A theoretical study of the tension levelling process.
Computer aided gear design to the new Australian code.

METALLURGY

In 1982 there was a substantial transfer of part-time students to full-time courses. The present uncertain situation of the local steel industry, on which the Department is dependent, means that future levels of enrolments are difficult to predict and it may be necessary for the Department to develop a flexible and innovative attitude to its courses in the future. The highlight of 1982 was the visit by Professor Tsun Ko of the People's Republic of China. It is expected that the Department will be able to develop this contact by later visits of members of staff to the People's Republic of China.

Research Theses in Progress

PhD

Thermo-mechanical processing of high strength low alloy steels.
Thermo-mechanical processing of ti-bearing high strength low alloy steels.
On-line dynamic analysis of the blast furnace process.
Segregation in packed beds.
Fatigue of ferrous alloys.

ME

Effects of increased bed height and suction on sintering.
Structural transformations in Niobium, Titanium high strength low alloy steels.
Some aspects of metal forming operations.
Structural and kinetic aspects of phase transformation in a duplex stainless steel.
Shape memory effect in iron alloys.
Spot welding.
Environmental cracking in natural waters and its prevention by inhibitor addition.

The mechanical behaviour of copper alloys.

Structural aspects of high strength low alloy steels.

Deformation and recrystallization in a duplex stainless steel.

Mechanical behaviour of sheet metals.
In 1982 the Department of English was disestablished by Council and two new Departments of English Language and of English Literature and Drama were set up.

It was felt that English Language students should have an opportunity to take their study of Modern English further and this resulted in the introduction of the courses, English Language and Linguistics A and B, both of which contain Modern English strands.

The new department attracted higher enrolments than the language section of the former Department of English.

The Department participated in the Year 12 - Introduction Day as well as contacting local schools giving information about the Department's discipline and courses.

Research Theses in Progress

MA

The role of the host in Chaucer's Canterbury Tales.
Australianisms in the novels of Thomas Kenneally.
Relationship between young and old in Old English poetry.

ENGLISH LITERATURE AND DRAMA

The Department of English Literature and Drama provides two strands of study for students: in English Literature and in Drama.

The English Literature strand includes courses in sixteenth, seventeenth, eighteenth and nineteenth century English literature as well as courses in Utopian and anti-Utopian Literature, Australian Literature and in Ballad and Lyric.

The Drama strand includes courses in Human Drama and Institutionalized Drama, as well as the study of Drama and Theatre and Modern Media.

Students wishing to take a comprehensive course of study in English Literature and Drama may draw, at the appropriate levels, not only from subjects offered within the Department but from all subjects offered at 200-level and above in the Department of English Language.

The drama courses have continued to involve both students and staff in various forms of practical activity related to their work on these courses including, for example, participation in workshops, full-scale productions and through associations with the local theatre group, Theatre South.

Research Theses in Progress

PhD

Commitment and two modern British dramatists: Trevor Griffiths and David Hare.

MA

Disraeli's scope as a novelist.
Literary texts set by Benjamin Britten.
Nineteenth Century Australian women writers.
Australian fiction of the Great Depression.
Thea Astley: the novels.
The dichotomy of body and soul in the poetry of George Herbert.
Australian girls' fiction.
The literary development of Humphrey McQueen.
There were no major changes in the teaching programme of the Department during the year. The use of video tapes as a normal teaching tool has increased with frequent use of the extensive range of tapes held by the French Embassy in Canberra.

A teaching assistant provided by the Italian Government enabled the Department to introduce Italian Honours courses in 1982.

The Department participated in the Year 12 Introduction Day. Professor Leal also visited High School Principals in the area to encourage interest in foreign language study. Several other visits to schools were made by staff.

Research Theses in Progress

PhD

The interplay and development of objective and philosophical attitudes in the study of Eastern religions in 18th Century French literature with special reference to Voltaire.

MA

Recurring themes in the narrative works of Grazia Deledda.

HISTORY

The 1981 Committee of Review of the Department recommended that it develop the teaching of history in three regional streams: European, Asian and Australian. Consequently, it was resolved to phase out the first year course in English Social History, incorporating elements of it in a new first year course on Europe 1900-1980, to be introduced in 1983. The new first year course in Australian history, Australia Before 1900, was offered for the first time in 1982.

Enrolments in 1982 were higher by about 28% overall. Much of this seemed to be due to the popularity of the new first year course in Australian history. First year enrolments rose 32% and second year enrolments no less than 62%.

Research Theses in Progress

PhD

The first cavalry army, 1918-1920.
The attitude(s) of the Australian Trade Union movement towards the Soviet Union, 1930-1960.
The revolutionary intellectual as war leaders: V.I. Lenin and Soviet Obozony, 1918-1920.
Technological change in N.S.W. coalmining, 1930-1965.
History of Clothing Trades Unionism in Australia.
Nikolai Aleksandrovich Rozhkov, 1868-1927.
Development of Illawarra Coalfield, 19th century.
Labour and politics in N.S.W., 1880-1900.
Irish assisted immigration to N.S.W., c1830-1870.
A History of the Federated Miscellaneous Workers' Union of Australia.
History of Water Board Employees' Unions.
Western Images of the Soviet Union, 1920-1930.
MA

British public opinion towards the United States of America between September, 1939 and December, 1941.
Redundant women in the Promised Land: English middle class women's migration to Australia, 1861-1881.

HISTORY AND PHILOSOPHY OF SCIENCE

The discipline of history and philosophy of science (HPS) has undergone a considerable transformation in the past ten years. There are a number of reasons for this. Historical studies of science have been radically influenced by models developed within the sociology of knowledge. A new breed of social historians of science, trained in modern historiography, have breathed new life into the history of science. A change has occurred in the popular view of scientific knowledge and technological change, such that science is becoming less an example of objective truth and a guarantor of spiritual progress and more a source of problems and uncertain troubling knowledge; this has led to renewed interest in science and technology as cultural products. Finally, awareness of the relationship between science and the state has necessitated drawing on the concepts and methods of the economist and the political scientist.

This shift does not mean that traditional history of science and philosophy of science do not, or will not, continue to exist. They are both valid areas of intellectual inquiry, from which HPS should draw. But this new field of HPS, marked by its problem focus on the origin, nature, development and effects of science and technology, is much broader in scope, draws on a wider range of humanities and social science disciplines, and is truly interdisciplinary. Further, it provides a basis for the increasing demands on the discipline to contribute to the understanding and resolution of contemporary problems which have a scientific or technological component.

Hence, the objective of the HPS teaching programme is to develop in students an ability to recognise and dissect complex problems, to draw on the concepts and techniques of other disciplines as appropriate, with a full understanding of their strengths and limitations, and to communicate their understanding effectively. Courses have been designed to offer a strong major to students with widely varying interests in science and technology, a range of subjects related to the content and concerns of other disciplines, and an opportunity for those working in areas affected by technology to develop an expertise in dealing with it.

The Department participated in Year 12-Introduction Day, produced a library display, and presented a number of talks to teacher groups and school students. There is evidence that the strong research reputation and community involvement are serving to attract students.

Research Theses in Progress

PhD

The plant variety rights issue.
An examination of the effects of information technology on Australian organisations.
Towards a philosophy of technology.
The role of TAFE in technological change.
Industrial policy and industrial performance.
Australian Research & Development and technology transfer.
A study of social science in action: role and limitations of contemporary research into domestic inequality.
Evaluation of the "offset" policy.
The social effects of the introduction of computer-aided learning in school education.
The impact of technology on the employment of professional chemists.
Political decision-making in situations of technical uncertainty - the case of 2,4,5-T.

PHILOSOPHY

In 1982 requirements for graduating with a substantial and coherent study in Philosophy were made more stringent. Firstly it was decided to introduce a core pair of 300-level subjects, Epistemology and Metaphysics, which would only be available at 300-level and at least one of which would be for students undertaking a substantial and coherent study in Philosophy. Secondly, it was decided to identify certain of the existing subjects as parts of a core programme through which students who aspired to a substantial and coherent study of Philosophy at 300-level would be steered.

Enrolments, particularly at 100-level were disappointing. Only three students majored in Philosophy in 1982. It should be noted that because the Department is not training students for a particular career, the demand will inevitably be small. In general, Philosophy Departments have a broad base of 100-level students, with small enrolments of able students in the senior years.

Research Theses in Progress

PhD

Luigi Pirandello: Existentialist.
Existence and reference.

MA

War crimes and their moral evaluation.
Philosophical psychology and aesthetics of imagination.
The metaphysics of F.H. Bradley.
Due to a continued rapid and sustained growth in student load, the resource position, in terms of staff, space and housekeeping, has continued to be unacceptably low.

A Diploma in Computing Science, which is a one-year postgraduate degree, is available for graduates in subjects other than Computing Science. This course provides a concentrated update in current computing science methodology.

A Master of Computing Science was approved by Council late in 1982. Current resources permit only the part-time version of the course but it is hoped that outside financial support can be found to introduce the course full-time. The course is aimed at graduates who have no background or experience in computing. The government is seriously considering a major expansion of computer education in high schools. This course should appeal to experienced teachers who wish to obtain experience in computing science.


The Fourth South Coast Summer School in Computing was held in December, 1982. It was the first event of the newly introduced university-wide Summer Session. The students were split into three groups; beginners, advanced and master class. A series of lectures on computing concepts, algorithm design, programming and advanced computing concepts were given to the three groups.

Facilities and Equipment

The PE-3220 Interdata 732 was upgraded to the dual PE-3230 at a cost of $98,000.

Research Theses in Progress

PhD

Portability of operating system software.
Performance portable operating systems.
Student/machine interaction in microcomputer assisted teaching.

MSc

A local area network terminal multiplexer node.
Protocol for a local area network.

Mathematics

1982 was a particularly successful year for the Department of Mathematics. There were over 470 students enrolled in Mathematics 1A at the beginning of the academic year. This was due mainly to high enrolment in the engineering area.

Throughout 1982 staff in the Department of Mathematics and Computing Science together with colleagues at the Institute of Advanced Education have presented after school and all day classes for talented mathematics students in years 7-12.

Facilities and Equipment

The following equipment was purchased in 1982:

Watanable Intelligent Plotter WX4671.
NDKS7700T Printer with 8K Buffer.
Apple Graphics Tablet with Interface.
Research Theses in Progress

PhD

Mathematical modelling of rate limiting mechanisms of pyritic oxidation in overburden dumps.
Diffusion and heat condition problems with moving boundaries.
A problem in sequential analysis.
Mathematical models of the lung.
Solution of sparse matrix eigenvalue problems arising in the applications of the finite element method.
Random walk models.
Boundary integral methods for problems in hydrodynamics.
Boundary effects of shelf waves.
Application of the finite element method to the design of gas slider bearings.
Some problems associated with roll forming.
In 1982 a completely revised undergraduate teaching programme was introduced. The Department continued to offer one 100-level course which aims to introduce students to the full range of biological phenomena.

At the 200-level, two new courses (Botany and Zoology) provides the student with a foundation in classical taxonomic biology. These are complemented by two established subjects, Introductory Biochemistry and Evolution of Man. The former subject is designed to give the student a grounding in biochemistry, a major fundamental and unifying discipline of modern biology. The latter subject, offered also to general studies students, considers the evolution of man and the impact on the biosphere in terms of the broad principles and concepts of contemporary biology. Students undertaking a biology major must successfully complete all four subjects.

At the 300-level, one completely new subject, Microbial Physiology, has been added to the existing subjects, which give the third year biology student a choice from a range of biological topics for more advanced study.

A four-page brochure describing the biology teaching programme and outlining the research interests in the department was sent to all secondary schools in the Illawarra region.

Facilities and Equipment

Equipment purchased in 1982 included:
- An LKB 1250 Luminometer.
- A hydraulic French Press cell disintegrator.
- A Bomb calorimeter.
- A Wescor Osmometer.
- LKB Uvicord UV flow absorbance monitor.

The computing facilities of the department were also upgraded.

Research Theses in Progress

PhD

- Studies in the evolution of energy metabolism.
- Physiological and biochemical studies on Dunaliella.
- Osmoregulation in Eucaryotic micro-organisms.
- Osmoregulation in Cyanobacteria.
- The influences of thyroid hormones on the sodium pump in vertebrates.
- Insects and the role of refuges in post-fire succession in heathland.

MSc

- Plant-pollinator interactions in south eastern N.S.W. woodlands.
- Numerical taxonomy of dermatophyte yeasts.
- A study of the high biological productivity of Port Kembla harbour.
- The role of unburnt refuges in the maintenance of small-mammal populations after fire.
- Temperature regulation and hibernation in small marsupials.

CHEMISTRY

Overall student load remained about the same as in previous years. In 1982 there were 16 students taking at least 24 credit points of Chemistry at 300-level.

The Department decided to offer a bridging course in Chemistry in the two weeks prior to the start of 1st session 1983; as a consequence the Remedial Chemistry course would be reduced to 1 hour per week in session 1.
During 1982 a decision was made to cease offering the 96 credit point masters degree by coursework. Instead, a Master of Studies in Chemistry programme was designed for implementation from 1983. The general objectives are the same as those of the programme it replaced, but the much smaller credit point rating is more appropriate to the reduced numbers of staff in the department. The Honours Masters degree is still available by completion of the above 48 credit point coursework programme followed by a 48 credit point research thesis.

There are indications of a substantial growth in the number of PhD students in the department over the next couple of years, mainly resulting from developing links with nearby institutions such as CSIRO and AAEC at Lucas Heights.

The department gave a one hour presentation including a lecture, film and inspection of research facilities during Year 12 - Introduction Day. In addition, the Department was visited by groups of senior year students from the local high schools.

The department participated in the 1982 Work Experience Programme by hosting one pupil from Figtree High and one from Warilla High. Each girl spent one week under the supervision of various members of the technical staff.

Facilities and Equipment

The department was awarded $100,000 from the ultramajor equipment vote for the purchase of a VG12-12F quadrupole mass spectrometer to replace the 11 year old EAI instrument. The new machine was installed in September and linked to a capillary column gas chromatograph. It is currently being interfaced with a Nova 3 computer to enable computerised acquisition and processing of the mass spectral data.

Research Theses in Progress

**PhD**

Studies of possible carcinogenicity of coke oven emissions.
Hydrolysis of metal ions.
Chemical studies of air pollution in the Illawarra region.
Studies in molecular potential surface calculation.
Analytical studies in Australian shale oils.
Ring closure reactions of substituted aminomethylarenes.
Characterisation of components in shale oil.
Analytical studies on shale oil.
Studies in molecular interactions.
An investigation of the chemical composition and mutagenicity of welding fume.

**MSc**

Investigation of the cyclisation of dihydroisotryptamine.

**GEOLOGY**

The undergraduate teaching programme is directed at producing graduates who can be employed as professional geologists. Such an aim was as essential in the depressed job market at the end of 1982 as it had been for the buoyant market at the end of 1981. It demands a broadly-based course giving at least familiarity with, if not expertise in, all of the major areas of Geology. To give a course with a narrower base would make graduates much less acceptable to industry - both the local and coal-oriented industry and the wider spread of the raw materials and development industries - and to other employing organisations. Graduates from this programme have found employment in a wide range of companies, government instrumentalities, universities and the teaching profession.

The honours degree is of an end-on type. Typically only 50-60% of students expressing interest in taking the honours year are recommended for admission, the recommendations being based upon performance in Geology subjects in the first
three years of the course. A problem of the Department of Geology is that the recent excessive demand for geology graduates has resulted in companies stripping operations extending from staff through potential postgraduate students to potential honours students. This affected both staff and student populations. The present depressed condition of the mining industry will result in different pressures and a further change in the profile of the Department. The honours year contains some formal coursework but is intended primarily to develop a capacity for independent work. Support for the teaching programme of the Department was provided by two major companies during 1982. One of these had specifically recognised deficiencies in the support provided for teaching geology in Australian universities.

The postgraduate programme in Geology has historically been oriented towards PhD programmes, chiefly full-time students but with a significant number of part-time students from outside the Wollongong area taking programmes which relate to some of the areas of expertise of the academic staff. Even with the downturn of employment in Geology it may be some years before significant numbers of students could be expected to be interested in undertaking full-time postgraduate studies. For these reasons, part-time postgraduate students have become a more significant element in postgraduate teaching. Such students bring advantages in terms of experience and expertise to the University and commonly make available facilities and information which would not otherwise be readily accessible. The lack of a large cadre of postgraduate students "on site" is a disadvantage, but postgraduate students who do not reside in Wollongong nevertheless make a significant contribution to the academic life of the University. They also made heavy demands on some services.

The Department ran its second Geology Summer School for High School students from 30 November to 2 December. As in the previous year, the School consisted of lectures, films and practical sessions in the Department on the first day, and a two-day excursion (with an overnight stop at the Bungonia Environmental Centre) to the Marulan-Bungonia district. The school was attended by twenty students, mostly from year II (with several from year 10). A heartening feature of the attendance was that approximately 70% of students came from Campbelltown/southern Sydney area.

Facilities and Equipment

Most functions on the Image Analyser, purchased in 1981, became operational during 1982 but the XRF equipment is still not fully operational.

Research Theses in Progress

PhD

- The Permian coal-bearing basins of Western Australia and India.
- Studies in coal-bearing sequences in New Zealand.
- Sedimentation and diagenesis in the southern coalfields, N.S.W.
- Igneous rocks of the southern Sydney Basin.
- Geochemistry of recent sediments in Lake Illawarra.
- Directional properties of vitrinite reflectance and their relationship to stress conditions in coal seam.
- Thermal regimes in Australian sedimentary basins.
- Volcanic rocks in central western N.S.W.
- Relationship between coals and associated hydrocarbon source rocks.
- Aspects of sedimentology of coal measure sequences.

MSc

- Crude oil and potential source rock studies in the Eromanga Basin.
- Source potential of the lower part of the sequence in the Cooper Basin.
- Coal quality in the Gunnedah Basin.
- Aspects of igneous intrusions in the southern coalfield.
- Studies in micropalaeontology.
- Vitrinite reflectance distribution in the Otway Basin.
- Temperature effects upon the carbonisation of coal for blast furnace coke.
- Coal type and quality in the Latrobe Valley coals.
Coal facies relationships to sedimentary environments.
Heat-altered coals in the Collinsville area.
Uranium deposits in N.W. Australia.
Comparisons between some Gondwana coals.
Coals of the eastern Carpentaria Basin.
Organic matter in oil shales.
Mineralogical composition of Illawarra beach sands.
Coal resource assessment in the Gunnedah Basin.

PHYSICS

A new 100-level course was inaugurated in 1982. This consisted of PHYS 131/132 "Physics for the Environmental and Life Sciences A/B". The performance of the students in this course was very good there being no failures in PHYS 132. The first subject, PHYS 131, was offered in Session 1 while the other was offered in Session 2. In addition, the other 100-level course, PHYS 141/142, was re-scheduled so that PHYS 141 was available in Session 1 and PHYS 142 given in Session 2 rather than each running in parallel through the full year. This alteration in schedule for this course appears to have significantly improved the pass-rate in PHYS 142.

A further increase in enrolments occurred in 1982. This was due to a large extent, to the increases in enrolments in engineering and to the introduction of PHYS 131/132.

Facilities and Equipment

- Photometer head for astronomical observations.
- Crystal wire saw.
- Nuclear instrumentation for teaching.
- Liquid helium cryostat.
- Slew Motors for 18" telescope.
- Wavelength drive for spectrometer.
- Birefringent tuning filter for ring dye laser.
- Sound level meter.
- Multimeters.
- Diffraction grating.
- Power meter.
- Infrared polarizer.
- Dual range balance.
- Microcomputer and data processor.
- Linisher.
- Mirror and dye assembly.
- Oscilloscopes.
- Plate and film copier.
- Printer.
- Crystal polarizer.
- Digital panel meter.

Research Theses in Progress

PhD

Study of Neutron capture in the magic nuclides at N=50 and N=82.
Piezospectroscopy of neutral copper impurities in germanium.

MSc

The measurement of fission neutron spectrum of $^{252}$Cf and to determine the average neutron energy.
An infrared wavelength modulation spectrometer for the study of impurity spectra of semiconductors.
Scattering of light by solids.
A survey of infrared astronomical objects.
A study of some infrared detectors.
An encoder system for the 18" telescope and UVBYH photometry of bright UV stars.
Polarisation of Wolf-Rayet stars.
In 1982 the Department continued to teach first year undergraduate education in collaboration with staff of the Institute Sector.

In response to reviews by staff and students, plans were made to increase the curricular flexibility of the second and third year programme. Major innovations for implementation in 1983 include the team teaching of second and third year history and sociology of education subjects and the concurrent offering of second and third year philosophy of education.

Close contact with regional schools was maintained in 1982, primarily through the Diploma in Education programme in which practising teachers participate either as methods lecturers or practice teaching supervisors. A major curricular innovation in 1982 was to teach the bulk of the foundation subjects of the Diploma in Education programme in a team teaching, integrated format.

Honours and postgraduate enrolments remained high in 1982 and, combined with heavy student loads in all other sectors of the Department's programme, ensured that the resources of the Department were stretched to their limit. In particular, the higher degree supervision load reached very high proportions and there is every indication that this load will increase in 1983.

Research Theses in Progress

**PhD**

- Relationships between psycho-social variables and music and dance traditions in the Philippines.
- Techniques for evaluation and assessment of drama as a contributor towards personal development of the participant.
- Diagnosis and educational placement of minimal mental retardates.
- Epistemological foundations of educational innovation.

**MEd**

- Retrospective Analysis: A methodology for curriculum development.

**MA**

- Curriculum development in the teaching of History in N.S.W. Schools in the period 1880-1920.
- Bilingual Education: A study of some attitudes and expectations in Australia.
- The function of imaginative play in young children.
- Compensatory education.
- Impact of new methods in History teaching: Britain and Australia.
- Education and Society.
- The significance of the concepts of motive, conflict and relationship to establishing empathy in teaching of History.
- Some implications of compensatory education.
- Corporate planning behaviour in some teaching institutions.

**GEOGRAPHY**

In 1981, stress was laid on the Department's attempt to give a new thematic emphasis to its teaching programme and on the efforts being made to disseminate widely attractive and informative material bringing this change to potential students. New enrolments demonstrated the effectiveness of these efforts and in 1982 the programme of student information and attraction was further intensified.

The Departmental research programme continued to develop with all staff actively involved in the preparation and presentation of material for publication in international refereed journals, monographs or as book length studies.
For the first time Departmental Staff became substantially involved in outside consultancy, through the Friends Organization, with a variety of State and Federal Government Agencies and private concerns, bringing significant financial benefit to the Department.

Postgraduate student enrolments, both for course work and research degrees, continued to expand; the first doctoral thesis to be completed by one of the Department’s Commonwealth Postgraduate Award holders was submitted in December.

Departmental involvement in and influences on national geographic affairs was given a major fillip by the appointment or election of staff to the Councils of the two Australian professional geographical societies.

The on-going process of evaluation and review of the Department’s teaching programme and its effectiveness was maintained and some slight changes made to the programme in 1983 that will strengthen still further the vocational relevance of a major in Geography.

The introduction of a new subject “Transport Systems: Planning and Development”, drawing upon the professional expertise of Dr. R. Robinson, recently returned from several years involvement in Transport Planning with the UN/ESCAP, complemented existing offerings in Urban and Regional Planning and Development particularly effectively in this regard. This added coherence was reflected in significant course enrolments.

Facilities and Equipment

In 1982 the bulk of the departmental equipment vote was spent on the construction of a tilting flume. This addition to the Department's research capacity will prove invaluable in allowing controlled experiments into the behaviour of sediments, e.g. in gravel and sand river beds, thereby complementing the already extensive field measurement and observation programmes carried out by staff and research students. It is also probable that this facility will encourage significantly more inter-departmental cooperative research activity and quite certain that the teaching programme will be assisted considerably.

Research Theses in Progress

PhD

Aspects of industrial change and regional development.
Vegetation of Morton National Park.
Industrial development in Sri Lanka.
The composition and distribution of rainforests in Illawarra.

MA

Soils of Illawarra rainforests.
Coal transport infrastructure: An analysis of the decision making process.
Vegetation communities of the Budawang Ranges.

PSYCHOLOGY

The aims of the teaching programme at undergraduate level are to give students a broad introduction to the discipline of psychology. It also encourages specialization in selected areas of psychology, develops research skills and the ability to interpret and communicate the results of research. By achieving these aims the Department provides the academic background necessary for students' eventual acceptance as academic and professional psychologists through accreditation by the Australian Psychological Association.

The Department of Psychology also offers undergraduate courses such as: Diploma in Psychology, Diploma in General Psychology, Master of Arts in Applied Psychology, and postgraduate research degrees, Master of Arts (Honours) and Doctor of Philosophy.
A specified strand of study in the MA in Applied Psychology programme has been approved by the Public Service Board of New South Wales for the purpose of promotion to Clinical Psychologist. This approval is of considerable importance to prospective students who expect to work in State Government-funded health and welfare agencies in New South Wales.

The resting and return of subjects reflects the department's 5-year rolling plan, which rationalizes staff resources, while trying to maintain a viable range of choices for students.

In line with changes in course offerings over the past two years, the Department is continuing to redeploy some of its teaching resources from undergraduate to the graduate level. This change is partly in response to the needs of our own graduates and partly designed to contribute to the growing role of graduate training in Australian universities.

Facilities and Equipment

During 1982 the Department hoped that the new DEC, LSI11/23 minicomputer would be connected with the UNIVAC Computer of the University. The continued delay is affecting several of the research programmes. Because this minicomputer was bought from funds coming in part from the Department's 1982 equipment budget they were able to buy little equipment in 1982. The Department's purchases were as follows:

Sony S1T9ME Betamax Video Recorder.
Sony HVC-3000P Betamax Video Camera.
Meomedix NT216 Temperature Amplifier.
Kodak SAV-2030 Carousel Slide Projector.

Research Theses in Progress

PhD

Gestalt Therapy.
Transpersonal approaches to healing.
Individual differences in mental imagery.
The effects of motor programming on the nervous system.
Family therapy with children who are physically ill.
Runaways.
The development of personal constructs.
Retention of executive personnel.
Competition and co-operation: A role theory approach.
Transition to University.
Job satisfaction in health workers.
A cross-cultural study of sex roles.
The relationship between mother and infant.

MA

Child abuse.
Taste preferences.
Self-actualization and the Women's Movement.
Mental imagery.
Sports medicine - the psychology of rehearsal.
Perceptual deficit and reading disability.
Adults' reactions to parental death.

SOCIOLOGY

During 1982 a decision was made to introduce two Masters of Studies degrees for the benefit of graduates in sociology and related disciplines, who for vocational or other reasons wish to extend their understanding of sociology. The Master of Studies (Sociology) is designed to allow graduates to pursue studies of society, culture and knowledge within frameworks provided by sociological theory. The Master of Studies (Social Policy) is perhaps most vocationally specific, and is
designed to allow graduates to pursue policy-oriented studies within a framework instructed by debates in sociological theory.

There was a slight fall in the number of students choosing to major in Sociology. However this is not seen as significant in the light of the increasing interest in honours and postgraduate programmes. The number of students choosing to major in the subject will also increase when the new H.S.C. subject "Society and Culture" is introduced.

Departmental activities aimed at attracting students included:

(a) participation in the Year 12-Introduction Day and secondment of departmental members to high schools to talk to prospective university students.

(b) circulating all schools in the area with pamphlets and posters aimed at publicising university opportunities in general and the offerings of Sociology in particular.

(c) 800 letters were sent to students who had made enquiries about courses at this university for an arts degree. The letter contained information concerning courses offered by the Department.

On a more general basis the Department also had links into the community by way of such activities as talks to service clubs and providing media contacts for the local area as resource persons available for comments on social issues or news items affecting the region.

Research Theses in Progress

PhD

Scientific communication in the field of international relations.
Science in society. A comparative perspective of alternative knowledge systems from the viewpoint of the sociology of knowledge.
The historical determination of ideologies.
The formation of social change movements.
Culture and ideology in action - owner driver truckies in N.S.W.
The organizational structures of intentional communities.

MA

Women and work.
The effects of social and economic development on religious belief systems.
Dynamics of change in marginal situations.
The ethnic press in Australia.
Analysis of changes to child welfare - 1939-1982.
In the two years immediately prior to the federation of the Wollongong Institute of Education and the University of Wollongong much activity in the Institute focused upon defining aspects of community need. In response to brief advertisements posing the possibility of an Associate Diploma in the Arts being offered some 648 serious inquiries were received and supported the ultimate confidence placed in a Stage IV Submission to the Higher Education Board in mid 1981.

Following the establishment of a School of Arts and Community Studies in the Institute, the Centre for the Arts was structured as the first operational branch of the School. The initial specific aim of this Centre has been the implementation of courses for the award of a UG3 Associate Diploma in the Arts in areas of both performing and visual arts.

The function of the Centre in 1982 was to implement the subjects approved by the Higher Education Board for the Associate Diploma; and

(a) to service the School of Education in the old Diploma of Teaching, Special Studies, and curriculum studies subjects in art, craft and music;

(b) the new Bachelor of Education elective subjects and The Arts in Education curriculum subjects; and

(c) the various external studies subjects in art, craft and music associated with these diploma and degree programmes.

The Associate Diploma course is designed for 2 years full-time or part-time equivalent study. It requires a decision by students to specialise to the extent of majoring in a specific area of visual or performing arts.

The content and expectations of principal studies and the selection of support studies also places obligations on the student to perform with increasing independence as the course progresses. Such expectations look to an emergence of evidence of confident individuality and some creativity in the student.

To complement this specialization in their major study, the student is required to choose minor studies. It is here that the opportunity to broaden student outlook and abilities is offered. Appropriate aspects of ‘principal studies’ from both visual and performing areas are offered and a list of additional subjects broadens further the scope of student choice.

Successful co-operation was achieved with three community organizations which were planned into various course offerings as possible performance outlets:

- The Illawarra Symphony Orchestra;
- The Illawarra Choral Society;
- The Conservatorium Theatre Company.

Various students were involved in numerous performances with these organizations during the year.

A most significant development in the area of choral music came from a fusion of the University singers with an Institute choral group to form a new University Choir made open to all University students and staff. This new choir numbered 75, was conducted in 1982 by Mr. David Vance, and combined with the Wollongong Symphony Orchestra and the Wollongong Conservatorium String Orchestra performing at a most creditable standard.

"West Side Story" was presented by the community based company known as "The Conservatorium Theatre Company". This involved some 24 Associate Diploma students in cast, production and front of house activities.

The first act of ‘L’Orfeo’ - Monteverdi, was an open air production by 18 Associate Diploma students at the ‘Glennifer Brae’ site.
The significant major productions on campus in the area of theatre, have been two plays: "The Legend of King O'Malley" - produced in the Institute's imaginatively adapted student canteen - and "Rumours of Our Death", in the Drama Hut.

A concert practice hour functions as part of the programme and is available to performance strand students. University campus musicians and occasional students from the community, by invitation, seeking experience in performance. Audiences comprise Associate Diploma students and, on suitable occasions, interested people from the University Campus and the community.

Major highlights of this inaugural year have been the two exhibitions of students work in all major and minor studies subjects in the Visual strand. The first of these - a mini exhibition was mounted unexpectedly at the end of Session I when the good quality of student works became apparent, even though they had only had 15 weeks of tuition.

The second exhibition was a long term plan to mount student works which could satisfy the scrutiny of an exhibition committee. A feature of the opening evening of this major exhibition was the provision of occasional music by musicians from staff and students of the Institute and the Wollongong Conservatorium.
SCHOOL OF EDUCATION

The fundamental aim of the School of Education is to promote excellence in educational practice, and to this end, the courses offered by the School reflect contemporary research and philosophy in education.

The philosophy of the School of Education is reflected in curriculum design where emphasis is given to the conceptual framework of courses and the integration of subject sequences that comprise courses. In the development and implementation of its courses, the School is committed to an wholistic view, where emphasis is placed on the value of totality of a student's programme, where the common goal is the pursuit of educational excellence, rather than any philosophy which gives priority to excellence in a single discipline or subject sequence.

In general, undergraduate courses include a professional studies strand and a discipline or general studies strand, while post-basic and graduate courses are professionally oriented in their entirety. Within the professional studies area, subjects and subject sequences included in courses offered by the School result in an integrated curriculum, prescriptive in nature but highly relevant to the vocational orientation of the course. While such subjects and subject sequences draw heavily upon the traditional discipline base, they are not studies as disciplines in their own right but in terms of their potential contribution to the overall course and the vocational competence of graduates. Discipline or general studies provide students with the opportunity to engage in equally rigorous studies in area(s) which may be less directly related to the vocational purpose of the course but which are expected to contribute significantly to the personal development of the student and result in a graduate whose knowledge and expertise extends beyond the vocational focus.

In 1982 the School of Education comprised 48 academic staff of whom four are principal lecturers and thirteen are senior lecturers. It offered undergraduate degree and degree-conversion courses in primary education, physical and health education, mathematics education and english/history education. In addition, specialised graduate diplomas were offered in the following areas: environmental science, health education, secondary mathematics education, school administration and reading/english as a second language education. The School has an enrolment of approximately 800 students of whom 260 undertake their course work through the correspondence mode.

As may have been expected, the impact of federation on the School of Education has had both positive and negative outcomes. On the positive side, the School has achieved independence in a larger institution and has enhanced the flexibility of its courses by including subjects from departments of the faculties sector among its offerings. The joint initiative in the 100-level education subject, commenced in 1981, was continued in 1982 with considerable success, reflecting improved mutual respect between staff of the School of Education and staff of the Department of Education. The increased need to communicate across sectors of the University has also contributed to an improvement in the attitudes of staff to one another. However, a significant residue of doubtfulness, defense, and isolationism is evident in communication across the sectors. It is hoped that with increased interaction across sectors, staff will become secure in the knowledge that their areas of expertise will be valued and respected across the campus in an atmosphere which gives them the right to determine and implement their philosophy of education.

CENTRE FOR STUDIES IN LITERACY

The Centre for Studies in Literacy was established in July, 1982, with the appointment of Dr. B. Cambourne as its head. The Centre is responsible for research into literacy and the development of subjects, courses and appropriate in-service programmes.

The Centre has participated in a range of activities since July, 1982. They include a number of Workshops with groups from this area as well as interstate. The Jervis Bay Naval College has requested assistance with Remedial English with its new recruits. A tentative plan for involvement with its new intake next year is currently being planned. Several groups have also requested articles on writing-teaching writing, for their publications.
This range of activities is sufficient to demonstrate that the Centre is a worthwhile enterprise, capable of making a significant contribution to the professional community.
SCHOOL OF INDUSTRIAL AND ADMINISTRATIVE STUDIES

The School of Industrial and Administrative Studies was formed in August 1982, by the appointment of the Head of School - Dr. M.J. Hough. Dr. Hough holds degrees in engineering and psychology, diplomas in industrial engineering, education and administration, a master's degree in administration and a doctorate in supervision from the University of Georgia. He was appointed from a Senior Lecturer position at Riverina College of Advanced Education, and his research interests relate to job satisfaction and career stages in public service professionals.

The School will commence teaching in 1983 through two new courses at Associate Diploma levels and the transfer of an existing Postgraduate Diploma in School Administration course from the School of Education.

The main activities of the Head of School in 1982 have been in 5 areas:

- course development and approval
- selection and appointment of new staff
- dissemination of information about the new School
- future planning
- personal academic endeavours.

Two Associate Diploma courses, one in Industrial Studies and the other in Computer Management have been recommended for approval and implementation in 1983.

The School has a profile of potential course development for possible introduction over the period to 1988. One of the early major priorities of the School in 1983 will be contact with the community to confirm need and demand for such courses, as well as consultation with appropriate Faculty sector departments and with T.A.F.E. for their attitudes towards such courses. In the case of Departments their ability to assist in the teaching of sections of these courses, if introduced, will be a major focus of consultation.

The School is allocating its immediately available resources in 1982/83 to building up a range of microcomputer based software relevant to business, industrial and scientific applications, as well as commencing a resource collection of management training material.
After the uncertainty of 1981, which culminated in the Review of the Centre for Multicultural Studies the University re-affirmed its commitment to the Centre when Council endorsed the major recommendations of the Committee of Review.

The Centre did not participate in teaching during 1982. Some preliminary proposals were developed for the introduction of a Master of Studies degree to replace the Diploma in Applied Multicultural Studies, which was last offered in 1981.

In the absence of the Director and some uncertainty about the appointment of a full-time Head and support staff, in the future research activity declined in 1982. However, full-time staff continued to develop the Centre's theoretical work on ethnicity and class and its relation to education and social policy.
Distance teaching, as the correspondence mode of education is now popularly described, poses problems for teacher and student which are not encountered in the face to face situation. Students are uncertain in the initial stages, feel isolated, and each believes that his worries and problems are unique. Teachers must accustom themselves to a different form of communication (mostly written) which needs to be crystal clear. They must be prepared to devote a great deal of time to very careful marking of assignments and the writing of comments which are critical, but helpful and encouraging to the students, and they must make sure that this work is done without delay so that students receive a positive feedback as quickly as possible after the submission of assignments.

The staff of the Institute has tried to overcome some of the difficulties created by distance teaching by means of:

- an Orientation Weekend at the beginning of each academic session so that students may visit the Institute and meet fellow students and teachers;
- vacation schools;
- tele-tutorials;
- a day and night answering service for students who wish to contact lecturers;
- encouraging students to form study groups in the areas where they live;
- visits by the Head of the Division and the Co-ordinator to groups of students outside of the Wollongong area.

The tele-tutorial has been introduced for the first time this year. A limited number of students are linked by telephone with a lecturer so that over a period of half an hour discussion may take place and questions be asked and answered. Mechanically these have proved successful, but we have not, as yet, had sufficient feedback to be able to reach any conclusions on their educational value.
The aims of General Studies are to provide undergraduate students with a richer and more varied subject offering than this university could otherwise afford. This is done by means of interdisciplinary subjects where General Studies co-ordinates and services the presentation of subjects based on a single department but offered also under a General Studies number and aiming to attract students who might not otherwise look under the science schedule, for example, when enrolling or re-enrolling; and subjects which larger universities offer but for which there is no departmental establishment at Wollongong. A further important function of General Studies has been the launching and testing out of new subjects, which if successful can then be attached to the appropriate subject department.
RESEARCH INTERESTS AND PUBLICATIONS

FACULTY OF COMMERCE

ACCOUNTANCY

Research Interests and Major Topics of Investigation

Australian company financial reporting and New Zealand company financial reporting.
Corporate taxation.
Australian steel industry.
Role of stockbroker recommendations in institutional investor decision making in Australia.

Monographs


Refereed Publications

J.B. Ryan. "Historic cost still has uses in a CCA world", The Accountants' Journal, (September, 1982).

Conference Papers


Reports


ECONOMICS

Research Interests and Major Topics of Investigation

Labour Economics and Industrial Relations

Aborigines in the Workforce.
An Australian Social Contract.
Designing unemployment statistics in New Zealand.
Industrial Relations aspects of the Myers recommendation.
Inflation and structural unemployment.
Labour Market implications of changing patterns of work and education.
Manpower management for the individual or organisation.
New technology and Union bargaining procedures.
Occupational and industrial segregation of women.
Theory and measurement of labour hoarding.

Regional Economic Research

Analysis of safety statistics and procedures at Australian Iron and Steel.
Assistance for the steel industry.
Consumer perceptions of the Wollongong Central Business District.
Decentralisation in Australia.
Evaluation of the RED Scheme.
Factors affecting the extraction rate in coal mining.
Illawarra business prospects.
Impacts of the Port Kembla Coal Loading Facility Expansion on the regional traffic programme.
Methodology of estimating regional input/output tables.
The choice between bus and car transportation in the Wollongong Region.

Economics of Developing Countries

Agricultural co-operatives in Papua-New Guinea.
Analysis of absolute poverty.
Employment and production of plantation agriculture in Papua-New Guinea.
Overseas investment in Fiji.
Productivity in Indian agriculture.
The role of natural resources in economic development.
Turnpike optimality in input/output systems.

Other Research Areas

The relationship between income taxes and the distribution of income.
The effect of the tax system on capital investment decisions.
The economics of crime and the parole system.
The measurement of income tax progressivity.
Models of flood mitigation.

Monographs


Refereed Publications


Conference Papers


Reports and Other Publications


Research Interests and Major Topics of Investigation

Water Engineering
Flood hydrograph modelling using linear and non-linear models.
Flood frequency analysis using regional relations between flood statistics and catchment physical and climatic characteristics.
Urban drainage hydraulics, use of detention basins for flood reduction, and energy losses in urban drainage pipe systems.
Coastal engineering studies of the interaction of waves and structures.

Fluid Mechanics
Hot-film anemometry utilisation in hydraulic engineering.
Two-phase countercurrent flow in natural gas pipelines.

Geomechanics
The stability of soil and rock masses.
The consolidation of porous media saturated with fluid.
Variable boundary problems on the base of both linear and non-linear theories.
Development of the mathematical description of the consolidation process with consideration of some of the physical phenomena.
Applications of the numerical solutions in engineering computation and prediction of settlement process.
Reinforced earth structures.

Structural Design
Analysis and design of unreinforced cellular brick walls and columns under axial and lateral loads.
Experimental determination of the behaviour of timber beams reinforced with metal plates.
The development of low-cost building material.

Materials
The study and use of industrial by-products in cementitious materials.
The behaviour of fly ash, granulated blast furnace slag and the rejects from the fluidised-bed-combustion of coal wastes when these materials are incorporated into concrete mixes.
Properties and uses of rolled concrete.
Fatigue properties of ferrocement.

Mining Engineering
Roof bolting, ventilation, computer simulation and modelling analysis of mining operations, mine planning, rock outburst, coal stockpiling, mine gases, ground control.

Environmental Engineering
Environmental aspects of coal mining especially with relationship to transport and storage.
Wind tunnel testing of coals and suppressants.

Refereed Publications


Conference Papers


Reports


Other Publications


Research Interests and Major Topics of Investigation

Design and construction of a twin rotor induction motor.
Efficiency and optimal design of machines.
Design of brushless slip-ring induction machines.
Flux distribution in a new type of axial flux machine.
Development of an electrically driven wheelchair.
Development of a microprocessor suited to time-critical control applications.
Robotics.
Electronic data logger for recording wind and sunlight measurements.
Investigation of the stability of a pinch roll d.c. drive.
Design of a microprocessor controlled nuclear density gauge.
Methods of improving the efficiency of electrostatic precipitators collecting flyash from the combustion of low sulphur coals.
Developing a range of computer programmes suitable for use by Power Distribution Authorities.
Developing a model of the interaction between primary and secondary corona in precipitators and in non-intrinsic measurement of precipitator disturbances.
An adaptive computer control system for a full-size unit at Munmorah Power Station, N.S.W.
System identification, modelling, optimisation and control.
Communication and microwave imaging systems.
Development of an adaptive antenna beam-former.

Refereed Publications


Conference Papers


Other Publications


MECHANICAL ENGINEERING

Research Interests and Major Topics of Investigation

Control of large scale systems.
Solar energy capture and analysis.
Analysis and comparison of close-coupled solar water heaters.
Flow properties of coal for storage bin design.
Flow properties and handling of precipitator dust.
Dense phase conveying of powders.
Computer-aided bin design.
Flow of fine powders from mass flow bins.
Environmental engineering.
Machine element design.
Hydrodynamics.
Self-tuning regulators.
Coal technology.
Tribology—bearings, friction and wear.
Vibration problems in magneto-elasticity.
Conversion and upgrading of the program MIMIC an UNIVAC.

Refereed Publications

This paper has resulted in the authors being awarded the George Julius Medal for 1982. The Award is made annually for the paper judged by the Mechanical Engineering College Board to be the most outstanding in the discipline of Mechanical Engineering during the previous 12 months.


Conference Papers


Reports and Other Publications


METALLURGY

Research Interests and Major Topics of Investigation

Shape memory effect.
Solidification.
Thermomechanical processing of microalloyed steels.
Recovery and recrystallization.
Cold rolling and annealing.
Ultra high speed annealing.
Cold working of metals.
Advanced mechanical testing facilities.
The kinetics of seiving.
The aerodynamic behaviour of the iron blast furnace.

Refereed Publications


**Conference Papers**


Research Interests and Major Topics of Investigation

The effects of industrialization upon English Art of the eighteenth and nineteenth centuries.
The relationship between class, politics and personality in the teaching of literature.
Old English language and literature.
Middle English language and literature.
Australian English.
Shakespeare.
Sixteenth century lexicography.
The language of James Joyce.
Place names of Suffolk.

Refereed Publications

Conference Papers


ENGLISH LITERATURE AND DRAMA

Research Interests and Major Topics of Investigation

Scottish Literature.
The Theatre Company: its role in the development of drama theatre, with specific reference to a regional company, Theatre South.
Attitudes to feminine beauty in sixteenth century poetry.
The poetry of Henry Howard, Earl of Surrey.
Adolescents and television dramas: Taste discrimination and critical responses.
Sex role stereotyping in Australian television programming.
When the past caught up with present: British docudrama and the Polish crisis.
Development of curriculum structures and teaching strategies for television studies.
Past meaning, present significance: essays on literary history and Australian writing.

Refereed Publications


EUROPEAN LANGUAGES

Research Interests and Major Topics of Investigation

Aspects of the writings of Federico de Roberto, with particular reference to Spanish influences.
Italian-American theatre of the early 20th century.
Neapolitan operas of the early 18th century.
An enquiry into the nature of eroticism in contemporary French literature.
Foreign language programs in Australian tertiary institutions.
The writing of history as a form of propaganda in Renaissance Italy.
Aspects of French regionalism, with particular reference to the southern region of Occitanie and to medieval history.
A comparative study of Pierre Drieu la Rochelle and Aldous Huxley.
Structural aspects of Flaubert's Trois contes.
Factors affecting the acquisition of intonation in French language classes.
A survey of multilingual radio services in Australia.
Folklore among primitive peoples.
Contrastive linguistics.

Monographs


Refereed Publications


Conference Papers

V.J. Cincotta. "De Roberto and the Critics - a re-evaluation", at *Research Seminar,* Department of Italian, University of Sydney, (May 1982).

V.J. Cincotta. "Writers of Narrative Fiction - the Italian American Experience", at *National Seminar on Italo-Australian Narrative and Drama Writers,* University of Wollongong, (September, 1982).


G. Rando. "Il Destino di Giuseppe Giberti" at National Seminar on Italo-Australian Narrative and Drama Writers, University of Wollongong, (September 1982).

Reports

V.J. Cincotta. Senior research assistant (ARGC grant) to Dr. Graham Hardie of the University of Sydney, Department of Music for translation and for the Neapolitan dialect of the 17th and 18th centuries for rare texts of Neapolitan Comic Opera from 1707 to 1750.

V.J. Cincotta. 1982 Theatre South Production of Dario Fo's Non si paga, non si paga: translated Italian text into colloquial English with no cuts for character analysis and stage direction.

V.J. Cincotta. "Naples...the Parthenopean City" published in Musica Viva Australia Programme for the Nuova Compagnia di Canto Popolare, 12-15. Playbill Publications, (February, 1982). The article was also used in the Adelaide Festival Programme for the same Compagnia.

V.J. Cincotta. Published in La Fiamma, July, 1982, (translated by Dr. Gianna Batzzella) "I problemi dell'insegnamento dell'Italiano all'universita di Wollongong".

G. Rando. "Submission for NAATI Recognition of an Interpreting/Translating (English/Italian) Course to be offered at the University of Wollongong in 1983", Department of European Languages (University of Wollongong), (August 1982).

HISTORY

Research Interests and Major Topics of Investigation

History of employment of aborigines in N.S.W.,
Comparative study of incomes policy in Australia, Great Britain, Sweden, West Germany, and Austria,
History of trade unions in the twentieth century,
Aspects of cross-cultural administration in the modern colonial era,
Colonial administration in Papua New Guinea,
Britain, the U.S. and the Korean War,
David Low, political cartoonist,
Growing up in the Illawarra 1838-1982,
Blue collar workers in Wollongong in 1938,
Mount Kembla disaster, 1902,
The transition in the writing of ecclesiastical history in Britain, 1750-1850

Monographs


Referred Publications


Conference Papers

HISTORY AND PHILOSOPHY OF SCIENCE

Research Interests and Major Topics of Investigation

The process of theory discovery.
The technological applications of Mendelism in Australia.
Recombinant DNA, eugenics and ethnics.
Implications of trends in coal and aluminium demand for Australian energy policy.
Sociology and political economy of technological developments: the nuclear energy debate.
National policy-making for science and technology.
The state of University research.
An evaluation of the effectiveness of the Commonwealth Postgraduate Award scheme.
Australian technology policy.
The state of technology development and introduction in the N.S.W. private sector.
The sociology of scientific controversy: vitamin C megatherapy.
The social construction of Darwin's theory of sexual selection.
The scientific revolution and the seventeenth century.
The historical anthropology of doctrines of scientific method 1600-1900
The "Crisis" of the seventeenth century and the origins of modern science: 1610-1650.

Monographs


Refereed Publications


Conference Papers


Reports


R. Johnston. Submission to the *Industries Assistance Commission* on Certain Budgetary Assistance to Industry.
Research Interests and Major Topics of Investigation

Political obligation.
Applied aesthetics.
Extra-legal rights.
Existence.
Probability and induction.
Modal logic.
Propositional attitudes.
Indicative conditionals.
Dialogue.
Philosophy of Biology.
Responsibility and killing.

Monographs


Refereed Publications in Specialist Philosophy Series


Refereed Publications in Other Specialist Serials


Refereed Publications in Non-specialist Serials


Commissioned Publication in Generally Non-refereed Specialist Philosophy Serials

Commissioned Non-refereed Contributions to Specialist Reference Serials

J.D. Mackenzie. Regular abstracts/reviews of papers on philosophical logic for Zentralblatt Fur Mathematik.

Conference Papers


Reports

Research Interests and Major Topics of Investigation

- Visible program execution.
- OPUS - A program understanding system.
- Algorithm design.
- Artificial intelligence.
- Data structures.
- Programming methodology.
- Microcomputer laboratory.
- Communications between Unix and the Univac MARKS System.
- Performance evaluation of operating systems.
- Cambridge ring.
- Robotics.
- Enrolment patterns in first year computing.
- Computer produced teaching aids.
- Text formatting.
- Automatic arrays.
- Applicative string processing.
- Program formatting.
- A rational pascal.
- Computer assisted structure elucidation.
- Interactive teaching aids.
- LISP System.

Monographs


Refereed Publications


Conference Papers

Reports and Other Publications


Reports - Preprint Series

82-1 I.G. Pirie. "On Teaching of Computing in Schools".

82-2 R.F. Hille and T.F. Higginbotham. "A Display System for Pascal Programs Written in Pascal".

82-3 P.J. McKerrow. "Project Management by Checkpoint Control".

82-5 R. Reid. "Terminal Booking System on PE 3220".

82-6 P.J. McKerrow. "Development of Computing Science Teaching Laboratories".

82-7 P.J. McKerrow. "Microcomputers, Slotcars and Education".

82-8 R.F. Hille. "Stack Permutations and an Order Relation for Binary Trees".

82-9 P.J. McKerrow. "Logo and Turtle Robots".

82-10 P.J. McKerrow. "Computer Controlled Galvanizing".

82-11 A.T. Berztiss. "Synchronization of Processes".

82-12 M.P. Shepanski. "SLOP - An Interactive Library Database System".

82-13 P.J. McKerrow. "Build your own Turtle Robot".

82-14 R.G. Dromey. "Exploiting Partial Order with Quicksort".


82-16 R.G. Hill. "The Execution of High Level Languages".

82-17 R.G. Hill. "Interactive Screen Preparation for Visible Program Execution".

82-18 R.F. Hille. "Program Development by Data Abstraction".

82-19 P.A. Bailes and A. Salamuni. "A Semantically-Based Formatting Discipline for Pascal".

82-20 P.A. Bailes. "A Rational PASCAL".

MATHEMATICS

Research Interests and Major Topics of Investigation

Low Reynolds number fluid dynamics.
High frequency ventilation in the lung, suspensions and flotation processes.
Illative combinatory logic.

WRK type algebras.
Two-dimensional water table variations due to tide, mean sea level shifts and beach front geometry.
Calculation methods in quantum chemistry, particularly vibrational levels of small molecules.
Viscous fluid dynamics.
Biological fluid dynamics.
Investigation of the forces acting on a slender body moving near an interface between two viscous fluids.
Variations of the secretary problem.
Sequential design of experiments.
Generalization of random walk models.
Diffusion in media with two diffusivities.
Diffusion and moving boundaries.
Solution of differential equations by means of one-parameter groups.
Chebyshev polynomials in evaluating functions and solving ordinary and partial differential equations.
Numerical linear algebra.
Computer assisted learning (CAL).
Seashell Mathematics.
Unified field theory.
Calculus of variations.
Ship hull design.
Geometry in nature.
Further characterizations of polynomials.
Finite systems of linear functional equations and equivalent systems of partial differential equations.
Mathematics as applied to transport systems.
Factorization of differential and difference operators.
Invariant means of topological groups.
Development of a theory of convergence in neighbourhood lattices.
Introduction of a theory of dual continuity in topological spaces.
A further investigation of continuous multi-functions with applications to differential equations.
Random coefficient auto-regressions.
Investigation of effects of time dependent changes in demographic parameters on populations.
Growth models for various age and position dependent cell communities such as roots and leaves.
Phyllotaxis.
Wind forcing on high frequency edge waves.

Monographs

Refereed Publications


Conference Papers

M.W. Bunder. "A formal metatheory in which Godel's first but not his second incompleteness theorem can be formalised", presented at Australasian Association for Logic Conference.


Reports


Reports - Preprint Series

82-1 J.M. Hill. "The Solution of Differential Equations by Means of One-Parameter Groups".


82-3 M.W. Bunder. "BCK and related algebras and their corresponding logics".

82-4 M.W. Bunder. "A Formal Metatheory in which Godel's First, but not his Second Incompleteness Theorem can be proved".

82-5 F.P. Prokop. "Pre-Neighbourhood-semi-lattices and Neighbourhood Lattices".

82-6 P. Cerone and J.R. Blake. "Streamlines, Pathlines and Pressure Contours for a Cavitation Bubble near a Free Surface and a Rigid Boundary."

82-7 M.W. Bunder. "The Proof of Lindenbaum's Lemma Cannot be Formalized".

82-8 A.I. Lee and J.M. Hill. "On the Solution of Reaction-Diffusion Equations with Convection".
82-9 B.G. Quinn. "A Note on the Existence of Strictly Stationary Solutions to Bilinear Equations".
82-10 M.W. Bunder. "The Answer to a Problem of Iseki on BCI-Algebras".
82-11 M.W. Bunder. "Every Commutative BCI-Algebra is a Commutative BCK-Algebra".
82-12 C. Illinois. "The Mathematics of Conchological Clock-Springs".
82-13 M.W. Bunder. "Some Weak Subsystems of BCK-Algebra".
82-14 M.W. Bunder. "Iseki's Condition and Commutative BCK-Algebras".
82-15 M.W. Bunder. "The Unprovability of Cornish's Condition (J) in BCK-Algebras".
82-16 M.W. Bunder. "On Quasi-Commutative BCK-Type Algebras".
82-17 "Department of Mathematics Annual Report 1981".
82-18 D.J. Clarke and I.G. Eliot. "Mean Sea Level and Beach Width Variation at Scarborough, Western Australia".
82-19 M.W. Bunder. "On Arruda and da Costa's Logics J1 to J5".
82-20 The Department of Mathematics. "Mathematics IA Reports 1979-1981".
82-21 M.W. Bunder. "Order of Strength Relations between Formal Systems with Applications to Metamathematics".
82-22 A.L. Worthy. "Generation of High Frequency Edge Waves on a Sloping Shelf".
82-23 M.W. Bunder. "A Strong Absolute Consistency Proof for Some Systems of Combinatory Logic and Set Theory".
82-24 D.J. Clarke, J.R. Frew and I.G. Eliot. "Nearshore Bar Patterns on a Small, Sandy Beach".
82-26 E.J. Hannan and B.G. Quinn. "Line Splitting".
Research Interests and Major Topics of Investigation

Animal physiology and behaviour.
Ecology.
Microbial physiology and biochemistry.
Plant physiology and biochemistry.

Monographs


Refereed Publications


Conference Papers


Reports


CHEMISTRY

Research Interests and Major Topics of Investigation

Computers and chemistry.
Environmental and analytical chemistry.
Hydrolysis of metal ions in aqueous solution.
The chemistry and possible mutagenicity of welding fume.
Biochemical prospecting for gold.
Analytical procedures for shale oils.
Analysis of hydrotreated shale oil.
The synthesis and investigation of transition metal complexes as models of biologically important sites.
Techniques of objective error assessment in computing the energy changes following geometry changes.
Analysis and investigation of the H₂-H₂ van der Waals interaction.
Accounting for the observed energy of the excited (n→δ) electronic state of unsaturated moieties such as CH₂=CH₂ and CH₂=S.
Computation of the vibration-rotation spectrum of triatomic ions such as H₃⁺.

Refereed Publications


Conference Papers


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Reports


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GEOLOGY

Research Interests and Major Topics of Investigation

Coal carbonization.
Maturation and source-rock studies in Australian sedimentary basins.
Petroleum of low rank oil shales.
Strata control - stress/strain studies in the Southern Coalfield, New South Wales using reflectance and anisotropy of magnetic susceptibility.
Studies of uranium - bearing rocks, Amadeus and Ngalia Basins, Northern Territory.
Petrogenesis of gneisses, Broken Hill, New South Wales.
Ordovician faunas of New Zealand.
Permian igneous rocks of the southern Sydney Basin.
Mineralogy of industrial materials.
Geology of the Windellama - Marulan region, New South Wales.
Sedimentological studies in the Illawarra Region.

Monographs

Refereed Publications


Conference Papers


Research Interests and Major Topics of Investigation

Astronomy.
Atomic and molecular Physics.
Musical acoustics.
Nuclear Physics.
Solid state Physics.
Spectrophotometry.
Monographs


Refereed Publications


Conference Papers


P.E. Simmonds, R. Sooryakumar and M. Cardona. "Resonant Brillouin Scattering and Uniaxial Stress Effects of Polaritons in GaAs", Ibid.


Research Interests and Major Topics of Investigation

Classificatory ability in Australian children.
Cognitive development of minority groups.
Convergent, divergent and operational thinking among white and Aboriginal children.
Curriculum theory and development.
Effects of mass media on children.
Enrichment programs for disadvantaged preschoolers.
Instructional design and evaluation.
Learning: how and why it occurs.
Politics in education.
Migrant education through the media.
Schooling and social class.
Socialization of children, migrants and minority groups.
Open education.
Work preparation of the mildly mentally retarded.
The psychosociology of teacher development.
Curriculum development in higher education.
Women in higher education.
Australian History of Education.
Educational evaluation.
Sociology of language and education.
Oral language, literacy and educational success.
Analysis of educational views of prominent contemporary thinkers.
Popper on education.
Relating philosophy of education to educational administration and policy.

Monographs


Refereed Publications


R.C. King. "For we know in part and we prophesy in part ....", Australian Psychologist, 17:1, (1982), 9-29.

Conference Papers


D.J. Corson. Fourth South Coast Summer School in Computing, The University of Wollongong - Panel member: "Computers in Education", (December, 1982).


Reports

Research Interests and Major Topics of Investigation

Erosion, transportation and deposition of beach sands.
Problems of agricultural development.
Monitoring of the patterns and processes of urban growth and decline in non-metropolitan Australia.
Processes of river channel formation and changes.
The impact of containerisation on port operations and structure in the developing countries of Asia.
Changing levels and patterns of birth rates in New South Wales.
The evolution of the Eastern Highlands, the development and chronology of alluvial landforms and environmental problems.

Monographs


Refereed Publications


Conference Papers


Reports and other Publications

Research Interests and Major Topics of Investigation

Ergonomic analysis of industrial injuries.
Organizational communication and problem solving.
Drug rehabilitation and community action.
Automaticity in visual perception.
The application of "Automaticity" to the understanding of Dyslexia.
Individual differences in mental imagery.
The application of evoked cortical responses in the investigation of children with minimal brain dysfunction.
Gestalt therapy.
Holistic health.
Transpersonal Psychology and consciousness.
Development of personal constructs.
T-wave amplitude and heart rate changes as a function of cognitive stress in individuals differentially sensitive to such stress.
Cognitive and Psychodynamic foundations of morality.
Phenomenological constructions of aggression in parents and their children.
Significance of differences in styles of childbearing as between mothers and fathers.
Self-identity in adolescents.
Bronchial asthma.
Imagery and disease.
Concepts of "Psychology" in Social Psychology textbooks.
A theory of actors.
On (chiefly human) behaviour.
Limits on certainty.
Decision making in relation to counselling psychology.
Computer applications to psychological tests and their interpretation.
Coping with chronic illness.
An evaluation of crisis intervention counselling with hospitalized patients.
Men in transition.
Content analysis of dialogue.
An exploration of traits in situational contexts.
Women's Studies Courses in Australia.

Refereed Publications


C. Preston, L.L. Viney and M.T. Westbrook. "I'm lucky: I have only one needle a day", *Diabetic Conquest*, (August, 1982).


D.D. Diespecker. "Transpersonal psychology", *Australian Association for the Study of Religions*, Queens College, University of Melbourne, (August, 1982).


Reports

N.L. Adams. "Staff problems and training needs in Australian Gas Light Company" Report through *Fortune Education Systems*.


N.L. Adams. "Evaluation of a drink driver promotion", *Friends of the University*.


Research Interests and Major Topics of Investigation

Ethnicity class and education.
Effects of the present crisis in the steel industry, and of the coal production and transportation industries
Causes of unemployment in Australia.
The relationship between technology and underdevelopment.
Role of women in the armed forces.
Goals of scientific research.
Environment networking process.

Monographs


Refereed Publications


Conference Papers

T. Jagtenberg. "What are the goals of scientific research? An examination of issues associated with the institutionalisation of research and legitimation in the physical sciences", SAANZ Conference, (August, 1982).
K. Salleh. "Specularity and the Sociology of Knowledge" for the School of Sociology Visiting Seminar Series, University of NSW, (September, 1982).
K. Salleh. "The feminist ecological consciousness", Conference on Co-operative Communities, called by the N.S.W, Minister for Co-operative Societies and his Advisory Council, Sydney, (September, 1982).
Reports


K. Blackie, M. Donaldson and others. "The Immediate Prospects for Port Kembla Harbour, a submission to the Premier and Deputy Premier of the NSW Government, on behalf of the Task Force on Port Kembla Harbour", (1982).
Refereed Publications


Conference Papers


L. Gow. "Verbal self-instructional training to enhance generalisation outcomes with the mentally retarded", Australian group for the study of Mental Deficiency, Canberra, (September, 1982).


Reports and Other Publications


G. Gedge. "Improving Performance of the Young Athlete", Paper prepared for the N.S.W. Department of Leisure, Sport and Tourism - Australian Level I Coaches Accreditation Scheme, (November, 1982).


S. Rice. Reports and evaluation of Health Education Syllabus and Dance Kinder-12 Project for the N.S.W. Education Department, (1982).


W. Winser, "Education in Rural Areas", Invited Submission to Education Commission, (August, 1982).

Research Interests and Major Topics of Investigation

Analysis of retelling behaviour of 240 Australian children of differing reading abilities after oral and silent reading.
A psycholinguistic model of the reading process.
The processing of technological prose.
Analysis of the spelling behaviour of K,1,2 grade children involved in a writing "process" programme.
A study of the literacy development of children from a multiplicity of ethnic backgrounds.
High School writing project.
South Coast region evaluation of reading study.
Research Interests and Major Topics of Investigation

Ethnicity and class and its relation to education and social policy.
Workers' Compensation.

Monographs.


Conference Papers

From the commencement of first session, the library of the Institute of Education was located in the University Library building. Although the physical relocation of the Institute collection was effected with relative ease, the disadvantages of this decision will be apparent for some years.

The Institute monograph collection of about 20,000 volumes had to be shelved separately from the University collection. The collections cannot be integrated until the conversion of the Institute cataloguing records to machine readable format. The conversion will take three to four years unless special funding is allocated. The serials collections of the two libraries were integrated during the year.

Amalgamation highlighted the inadequacies of the Library building. If current acquisition and storage policies continue, the building will reach maximum storage in 1985. The increased number of library users has aggravated the noise problem caused by the overcrowding of study areas.

Restricted funding affected the level of library services. The purchasing power of the book-vote necessitated the cancellation of 181 serial subscriptions. Staffing was also restricted. The staffing establishment of the combined Library was less than that of its former constituents.

The administrative arrangement of the Library was revised in May. An executive officer was made responsible for the general administration of the Library. The University Librarian undertook policy advisory and review activities until the end of the year.

The secondment of the Archivist to administrative duties left the Archives section understaffed. Use of the collection continued and increased by 12%. No substantial additions were made to the collection.

During the year, 12,614 volumes were added to the Library monograph collection. The total Library collection is now in excess of 240,000 volumes. Use of the collection increased by 31.88%. Expectedly, the heaviest area of use was undergraduate borrowing. Loans to undergraduates rose from 83,439 in 1981 to 109,751 in 1982.

During 1982, 210,492 runs were processed giving a dollar value of $2,999,000. In terms of the number of runs, this was a considerable increase over the previous years total of 178,000. The dollar value was lower than the $3,600,000 in 1981 because of reduced notional dollar charges for memory usage.

With increasing numbers of courses being structured so as to utilize the benefits of interactive processing, daytime demand usage further increased in 1982; 71% of all runs processed as compared with 68% in 1981. Batch runs correspondingly decreased during the peak daytime period, but demand and batch usage during the night remained relatively stable.

Huntley Colliery and the Government Employees Medical and Hospital Benefits Club remain as external users with direct on-line access to the Univac mainframe. Wollongong City Council, having acquired their own computer system late in 1982 ceased to be the major external user. Via a Perkin-Elmer computer link at the Wollongong City Council utilizing WOLFE (Wollongong Front-End) software, Shellharbour Municipal Council continued to process relevant applications such as Rates, Payroll and Works Costing. Other external users, Wollongong and Shellharbour libraries and Telecom availed themselves of the batch facilities provided, or used either low speed dial-up lines or were connected by way of Perkin-Elmer front end processors using WOLFE software.
Towards the end of 1982 considerable development of a document processing system entailed not only enhancement to the existing WOLFE software, but technical improvement to low-cost Beehive terminals. This development then enabled secretaries in particular to create text files on the front-end machines using $SED (a new full screen editor) these files processed on the mainframe using the TEX package and receive, via the front end WOLFE software, output on the QUME high quality printer.

Of major importance in the direction of Computer Centre activities, is the stability of the Univac Operating System. With few aberrations from the norm, software stability was generally very satisfactory throughout 1982. This of course meant development in other areas not only progressed unimpeded, but was allowed to accelerate. Indeed, general throughput reaped the benefits of stable software.

Chiefly, hardware upgrades were confined to replacement of two disc subsystems (8440 and 8450) with one dual controlled 8470 subsystem increasing the overall mass storage capacity from 1200 megabytes to 1600 megabytes, and acquisition of a second tape subsystem further reducing the time taken to transfer files from disc to tape. Major enhancements were made to Beehive terminals in the network by Computer Centre technical officers in order to facilitate graphics capability and full screen editing, the latter as the linchpin in the burgeoning document processing applications field.

**EDUCATION RESOURCES CENTRE**

The amalgamation between the University of Wollongong and the Wollongong Institute of Education had direct implications for the work of the Centre during 1982. Considerable time was spent by all staff in preparing and implementing the rationalization of the visual services of the two sectors. The amalgamated Centre lost one member of staff during the rationalization process which made the task considerably more difficult and reduced the quantity of support available. Nevertheless, by the end of the year, equipment holdings had been combined and procedures established for the provision of services to the entire campus. Some outstanding problems related to the amalgamation will not be solved until it is possible to appoint more staff to the Centre.

The Centre’s teaching development programme suffered somewhat because of the work associated with the amalgamation. Calls on the staff for advice on teaching methods and for professional evaluations of teaching grew steadily and were met in every instance but the planned programme of seminar/workshops had to be curtailed. In the event five video workshops were offered and there was an excellent response from staff.

During the year, a Working Party on the future of the centre met on a number of occasions. Its Report was submitted in early 1983.
STUDENT ACTIVITIES

THE STUDENTS' REPRESENTATIVE COUNCIL

1982 was a very busy year with a great deal of work being put into a "successful" amalgamation. Other fields of intensive work revolved around educational rights of students and strong student representation on all levels of University structures - numerous Committees, Senate, Council, etc.

This S.R.C. was a stong pro-A.U.S. group. Membership of A.U.S. was a major advantage in trying to inform and link a small, isolated campus to national educational issues.

The S.R.C. of 1982 also tried to foster and develop community links with organisations in need of support in areas of general student interest.

THE UNION

All students and staff of the University are members of the Union which exists to provide a social centre for the campus and to promote a range of activities to complement the mainstream academic work of the University. The affairs of the Union are controlled by a Board of Management and in day to day matters, by the Secretary-Manager.

1982 was another successful year for the Union, with continued growth in the usage of all the Union's services to the point where extensions to the Union Building are having to be considered as a matter of urgency in view of the pressure upon existing facilities. The Union's programme of activities was also well supported and events staged during the year included: lunchtime and evening concerts, featuring outstanding classical music and jazz performers; a varied range of arts and crafts exhibitions; a series of recreational classes in subjects such as yoga, jazz fitness, thought dynamics, photography, typing, guitar, speed reading and study techniques; a number of public debates on current affairs, as well as regular film shows and social entertainments. Union clubs and societies provided a further range of activities and two new societies - Literature Society and the Catholic Society - affiliated during the year.

The year was also marked by further increase in use of the Union's facilities and services by the local community which served to bring many thousands of visitors to the campus and thus strengthen links between 'Town' and 'Gown'.

The Childcare Centre operated by the Parent's Club ("Kids Uni") continued to thrive and provide a much needed service on campus, with high standards of childcare and pre-school education. However, the demand for places was such that for most of the year the Centre operated with well in excess of the desirable number of children. In the absence of progress towards the building of planned Stage II of the Childcare Centre the Management Committee has had no alternative but to lower the limit of the number of children that can be accommodated for 1983 in order that safe and satisfactory standards can be achieved.

The other significant development to affect the Union in 1982 was the federation of the University and Wollongong Institute of Education. Throughout the year meetings took place involving representatives of the Institute Students' Association and the University Union, Sports Association and Students' Representative Council, and after some initial reservations on all sides rapid progress was made on agreeing on a structure which from 1st January 1983 will bring all students of the federated University into membership of a single set of organisations, but which will preserve a degree of limited autonomy for the students of the Institute sector.
The Sports Association exists to provide a range of sporting and recreational activities for the University and all students and staff are full members of the Association.

In 1982 there were twenty one constituent clubs of the Sports Association in which members can participate. These clubs cover most sporting activities as shown in the list below:

- Athletics
- Australian Rules Football
- Badminton
- Basketball
- Hockey (Men's)
- Hockey (Women's)
- Judo
- Motor Cycle
- Netball
- Rugby Union
- Sailing
- Skiing
- Soccer
- Surf-Riders
- Table tennis
- Taekwondo
- Tennis
- Touch Football
- Volleyball

The Sports Association also promotes a wide range of intra-mural and social sports programmes and during 1982 - the second year of operation of the programmes - there was a major growth in participation rates, to the point where over 10% of the campus population have been involved in this part of the Sports Association's activities alone.

1982 has also seen continued investment by the Sports Association in the development of sporting facilities on campus. The most significant project undertaken during the year was the work on the completion of the No. 1 Oval, to create a turf cricket wicket and a second hockey field.

COUNSELLING CENTRE

During 1982, 312 people used the Counselling Service for personal concerns. During February, 240 people participated in a Preparation for University Programme for first year students. A formal evaluation of this programme indicates that it was effective in achieving its aims of establishing social support networks amongst students and preventing emotional stress within students, during their transition to university. During Session One and Two, group programmes were offered on managing stress, effective study and assertiveness training.

During second session, the Counselling Centre took over the administration of the Careers Service. Campus Interview programmes were organised and several seminars were offered on making job applications and preparing for interviews. The Counselling Centre continued to oversee the student Accommodation Service and Part-time/Casual Employment Service. Both were extensively patronised by students. The University's Medical Service also operates from the Counselling Centre and is serviced by interested local general practitioners. A total of 218 persons consulted the Medical Service's personnel during 1982 while 69 availed themselves of the Family Planning Clinic.

INTERNATIONAL HOUSE

Demand for accommodation was even higher than in previous years. At the commencement of the academic year, over three hundred applications had been received and the House had some 10 students on the waiting list. Due to resident withdrawals from the University after commencement of the academic year and the time required to fill the vacant rooms, average occupancy rate was approximately 98% in Session 1; 95% in Session 2.

Four formal dinners were organised in conjunction with Residents' Association. Guests included the Vice Chancellor, members of the Board of Management and their spouses.

The House was host for one day of a three day meeting of local representatives of the Association of Heads of Residential Colleges and Halls on 31st August, 1982. This visit was very successful. The Vice Chancellor gave an informative address on the amalgamation of a University and a CME.
**UNIVERSITY OF WOLLONGONG**

**ENROLLMENT SUMMARY 1982 - as at 30th April, 1982**

<table>
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<tr>
<th></th>
<th>ARTS</th>
<th>COMMERCE</th>
<th>ENGINEERING</th>
<th>MATHEMATICS</th>
<th>METALLURGY</th>
<th>SCIENCE</th>
<th>TOTAL</th>
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APPENDIX 2

DEGREES, DIPLOMAS CONFERRED

UNIVERSITY OF WOLLONGONG

The following candidates were admitted to degrees of the University by the Chancellor at Graduation Ceremonies held on Thursday, 6th May and Friday, 7th May, 1982.

BACHELOR OF ARTS

Sylvia Acevedo
Viken Achjian
Valerie Esme Dorothy Andrews
Juliette Louise Anthony
Kim Josephine Aubin
Nyrelle Margaret Austin
Judith Beryl Ball
Ross Barnes
Judith Helen Begnell
Angelina Grazia Belzito
Christine Jane Bessell-Browne
Margherita Rosa Bianco
Gabrielle Angela Blattman
Afife Boock
Sally Joan Bramley
Maria Rosaria Briglia
Stuart Marshall Brookine
Susan Joanne Brown
Thomas William Byrne
Pierino Caputi
Mary Carevic
Deborah Joan Carrick
Lydia Irene Josephine Castiglione
Joan Dorothy Cathcart
Nicholas Chourtos
Anne Margaret Cobbin
Robyn Coleman
Janice Patricia Condel
Kathleen Isabel Condel
Matthew Lee Coonan
Jacqueline Cope
Vick George John Cosic
Harry Couchman
Vivienne Jean Daley
Wayne Gregory Davies
Peter Joseph Dawson
Susen De Boni
John Ross Dewhurst
Julie Marie Dewhurst
Frank Di Giorgio
Robert-A Ann Nickie
Julia Mai Dorrington
John Patrick Doyle
Lindsay James Duncan
Christine Louisa Edmonds
Martin Gerard Egan
Helen Mary Eppel
Gregory John Erwin
Susan Fares
Mark Leonard Felton
John de Francie Felvus
Jane Elizabeth Ferguson
Paul Leslie Finch
Lynda Ann Frankcombe
Kathleen Jill Gallagher
Walter Gheller
Sabatino Gianni
Dianne Melanie Gibson
Andrew John Glover
Pamela Therese Gray
Ian Bruce Greig
Helen Grimes
John Douglas Guppy
James Russell Hagan
Melda Joy Hannam
Deirdre Heather joy Harvey
Narelle Lorraine Haworth
John Francis Hayes
Shirley Irene Heuston
John Herbert Hobson
Patricia Joy Hocking
Joan Margaret Hodge
Leone Christine Houghton
Felizardo Antiporda Intervalo
John Joseph Johnson
Julie Ann Johnston
Lynnette Anne Jones
Alma Marjorie Jordan
Margaret Lane
Gregory John Lanyon
Jennifer Mavis Le Page
Paul Lelli
Floriana Lenzo
Angela Lester
Audrey Lilian Lowrie
Audrey Ann Lucas
Marie Therese Lyall
Janet Margaret Lysaght
Hugh Edward Macdonald
Paul Arthur Macdonald
Patricia Catherine Marsh
Margaret Joan Mathieu
Jennifer Maree Matters
Deana Anita Mazuran
Patricia McGill
Robin Melvin McKinlay
Brian James McKinnon
Linda Jane Meek
Belinda Martha Miller
Bernard Peter Murphy
Catherine Elizabeth Murphy
Michelle New
Katherine Nobbs
Anthony John Nott
Kim Kathleen O’Grady
Peter Francis O’Hara
Terry William O’Toole
Janette Oliver
Merike Gail Oopik
Mara Panok
Carol Ann Pearson
Rhonda Ann Pratley
Pamela Margaret Rampe  
Aminath Rasheed  
Beverley Ratcliffe  
Petra Lynn Rees  
Bridget Roberts  
David John Robson  
Georgia Rodgers  
Maureen Margaret Ronczka  
Barbara Ada Roser  
Scott John Roulstone  
John Ruscica  
Lisa Denise Sakun  
Isabel Sanchez  
Fred Marcel Seldel  
Olga Seitaridis  
Jan Anders Sellin  
Shadia Habib Shalala  
Jean Sharkie  
Kenneth Robert Shaw  
Wendy Ann Shipard  
Maureen Short  
Christine Frances Simpson  
Megan Sixsmith  
Karl Edwin Skow  
Gillian Megan Smith  
Patricia Anne Spry  
June Stamp  
Rosemary Joan Stone  
Jeanette Dorothy Stutchbury  
Grace Tague  
Makafalani Tatafu  
Daniel Edmund Taylor  
Mark Tirris (Posthumous)  
Radmilisa Tootell  
Olga Treaty  
Maria Tsoukalas  
Timothy William Vandenbegr  
Gary Vaughan  
Natalie Clare Verdon  
Christine Marie Wales  
Allan Kenneth Went  
Gerhard Franz Wenzel  
John Wieruszewski  
Jill Lorraine Williamson  
Janelle Frances Wilson  
Jean Marguerite Wilson  

BACHELOR ARTS - HONOURS  
Mounir M. Balsoun, BA - (Honours Class II, Division 2)  
Ronald John Carne, BA - (Honours Class I)  
Glenda Charlton, BA - (Honours Class II)  
Helen Anne Craig, BA - (Honours Class II, Division I)  
Narelle Crux, BA - (Honours Class II, Division I)  
Christine Mary Dixon, BA - (Honours Class I)  
Kim Draisma, BA - (Honours Class II, Division II)  
Lois Gail Dunkerley (Honours Class II, Division II)  
Lynn Margaret Fahey, BA - (Honours Class I)  
Audrey May Heycox (Honours Class II, Division I)  
Brian Thomas Horan, BA - (Honours Class II, Division 2)  
Anne Veronica Lear, BA DipEd N.S.W. - (Honours Class II, Division I)  
Kevin Gibson Mills, BA - (Honours Class I)  
Daniel Pitman Moody, BA - (Honours Class I)  
Mark David Nicholson (Honours Class II, Division I)  
Maret Oser, BA - (Honours Class II, Division I)  
Stephen Pomfret, BA - (Honours Class III)  
Carol Anne Preston (Honours Class I)  
(The Australian Psychological Society Prize in Psychology)  
Emilio Robles (Honours Class II, Division I)  
James David Sheedy (Honours Class I, Division II)  
Phyllis Joan Tibbs, BA - (Honours Class II, Division I)  
Kerry Maree White, BA - (Honours Class II, Division I)
BACHELOR OF COMMERCE

William Neil Bath
Alan Robert Biggs
Scott Andrew Brodie (with Merit)
Robert Adrian Brown
Barrel John Caubrook
Malcolm Gregory Cook (with Merit)
Terry Glen De Coster
Enzo Peter Frino
Kris Russell Gallagher
Matthew John Gamble
Anthony Mark Gear
John Leslie Gerrard (with Merit)
Torsten Gerwien
Noel Anthony Gray
Ian Norman Grose
John Frederick Henry
Robert Bruce Higgs
Ian William Hunt
David Ellis Jones
Jennifer Therese Jones (with Merit)
Amelia Kollias
Ian Robert Eden Lawrence
Keith Michael Lopuszynski
Brett Macquarie
Ornella Manara
Jon Joseph Marks
Carl Lachlan Matchett
John Laurence May (with Merit)
Babara Nees

BACHELOR OF COMMERCE - HONOURS

Pauline Alison Doyle, BCom - (Honours Class I, Division 2)
Stuart John Sargent, BCom - (Honours Class I, Division 1)

BACHELOR OF ENGINEERING

Civil Engineering

Nigel Parker Ballantyne
Branimir Anthony Dragovic
Cliff William Harris

Gregory Mark Hughes
John O'Connell
Hindarto Setio

Electrical Engineering

Paul Francis Cooney
Peter Geoffrey Henderson
Terence Charles Larkin
Christopher Paul Madsen

Rosa Mercedes Munive de Jenkins
Glenn Ernest Parrish
Vaughan Alexander Williamson
Kevin John Woods

Mechanical Engineering

Graham Wesley Badman
Warren George Davis
Benno Adolf Gawehn
Patrick Robert Giles
John Albert Hackfath
Phillip Michael Healey

Russell Graham Jennings
Roderick John Pruks
Peter Thomas Wall
Bruce Lyndon Ward
Geoffrey Brian Watts
BACHELOR OF ENGINEERING - HONOURS

Civil Engineering

Cornelius Franciscus de Groot (Honours Class II, Division 2)
John Laurence Gibson (Honours Class II, Division 2)
Anthony John Edward Murphy (Honours Class II, Division 1)
Douglas Nils Nicholaisen (Honours Class III)

Electrical Engineering

Edwin Christian Bykerk (Honours Class II, Division 1)
Vincenzo De Santis (Honours Class II, Division 2)
Stephen Herbert Hamer (Honours Class I)
John Werner Harter (Honours Class II, Division 1)
(Staff Prize for the Fourth Year Electrical Engineering Thesis)
Nabil Issa (Honours Class II, Division 1)
Christopher John Reid (Honours Class II, Division 1)
Michael Augustus Smith (Honours Class I)
(The Institution of Engineers, Australia, Award)

Mechanical Engineering

Stephen Heinz Bergner (Honours Class II, Division 2)
Robert Enzo De Lazzari (Honours Class III)
Graeme Hill (Honours Class II, Division 2)
Gerhard Horst Mann (Honours Class II, Division 1)
Claudio Vitalino Morson (Honours Class II, Division III)
Greg Bruce Simpson (Honours Class II)
Mile Terziovski (Honours Class II, Division 1)
Paul Anthony Tolhurst (Honours Class III)
Trevor Barry Wilkinson (Honours Class II, Division 2)

Mining Engineering

Stephen Glenn David (Honours Class III)
(Western Mining Corporation Prize for the Mining Engineering Course)
Carmelo San Gil (Honours Class III)
(Western Mining Corporation Prize for the Mining Engineering Thesis)

BACHELOR OF MATHEMATICS

Peter Donald Asquith
Kerrie Irene Bloomfield
Sharon Lynne Chie
(Statistical Society of Australia N.S.W. Branch Prize)
Anne-Marie Creenaune
Anthony-Vito Cuoco
Bridget Mary Davis
Michael Leonard Entwistle
Belinda Ann Everitt
Donald Kenneth Findley
Sergio Michael Giason
Judith Ann Hamnond
Karl Harm
Robert Victor Hennessy
Paul Hynatidis

Elizabeth Helen Kalokerinos
Vasio Karamitsios
David Ross McClymont
Angelo Milan
Marisa Pagnan
Jennifer Paull, BEd, RecipEd N.E.
Anthony Michael Quinn
Rita Mary Reid
Beatriz Rojas
David Sherley
Ralph Edward Szulerowski
Helen Kathleen Varga
John Wagner
Ian Ronald Watkins
Alexander Zelinsky

BACHELOR OF MATHEMATICS - HONOURS

Kerianne Brennan, BMath - (Honours Class I)
Peter David Mcllquham (Honours Class I and University Medal)
(The Austin Keane Memorial Prize)
Milan Pahor, BMath - (Honours Class I)
Michael Anthony Sparks (Honours Class I)
Tony Peter Van Ravenstein, BMath - (Honours Class II, Division I)
BACHELOR OF METALLURGY

Paul Dawson
James William Harpley
Barry James Hodgson
(Australian Institute of Metals (Port Kembla Branch) Metallurgy Prize)
Peter John Jakins
Neil Anthony Kaye

BACHELOR OF SCIENCE

Narelle Anne Angel
Elaine Deborah Bennett
Andrew Robert Brinsmead
Gregory Patrick Brown
(The A.J. & I. Waters Prize in Geology)
Philip Brown
Susan Mary Carthew
James Anthony Cummins
Christine Eunice Drabble
Russell John Fletcher
Penelope Kay Grahame
Geoffrey John Imisides
Trevor Douglas Jones
Arthur Edmund Jux
Wolfgang Korth
Roman Kuzyk
Dinaaz Lentin
Alan Joseph Louis
Yolanda Isabel Medina
David William Meredith

Jenifer Jean Moon
Nigel Colin Parker
Philip Irvine Parkin
Peter Rontziokos
Narelle Sales
Michael Sharp
Darrell Gregory Peter Shephard, BA
Macq.
Peter Charles Shephard
Milton James Sherring
Coral Rose Sowden
Carolyn Dorothy Tate
Beatrice Anne Taylor
Jonathan Dean Thompson
Leigh Richard Tristram
Glenn Douglas Turner
Graham Stanley Unicomb
Rozalia Magdolna Varga
Michael Neil Wakefield

BACHELOR OF SCIENCE - HONOURS

Susan Margaret Anstey, BSc - (Honours Class II, Division I)
Donna Marie Ashelford, BSc - (Honours Class I)
Ian Stewart Barrow (Honours Class II, Division I)
Peter Donald Gray, BSc - (Honours Class I)
(The Peter Beckmann Memorial Prize)
Colin Geoffrey Hall (Honours Class II, Division I)
Larry Alan Hick, BSc - (Honours Class II, Division I)
Douglas Mark Howarth (Honours Class I)
Linda Lea Ingram (Honours Class I)
Kylie Frances Mackenzie, BSc - (Honours Class II, Division I)
Robert Stephen Powrie, BSc - (Honours Class II, Division I)
Julie Ann Silburn, BSc - (Honours Class I)
Deirdre Tober, BSc - (Honours Class I)
(Bert Halpern Prize in Chemistry)
Franklin Vairnhos, BSc - (Honours Class II, Division I)

HIGHER DEGREES

MASTER OF STUDIES IN ACCOUNTANCY

Graham Dean Atkinson, BCom
Dennis Lagopodis, BCom
Michael Li Hung Kwan, BCom W.A.
Geoffrey Maxwell Smith, BCom

MASTER OF STUDIES IN EDUCATION

Terrence John Burns, BA Macq.
Mervyn Raymon Hall
Anne Jean Hayward, BEd Leeds

Joyce Florence McIver, BA
Bernadette Therese O'Sullivan, BA
BEcN.E.
MASTER OF ARTS - HONOURS
Paul Nicholas Delaney, BA DipEd NcIc.
James Harold Leigh, REEdStudNcIc., BA DipEd.
Ghulam Mustafa, BA MSc. Punj
Gillian Reffell, BA Syd.
Pamela Joy Hall, BA BSc MPA N.S.W.
Hilary Anne Maitland, BA N.S.W.
Thesis: "Subjects Perception of and Responses to Punishment: A Study of Perceived Severity of the Punishing Stimulus, Perceived Locus of Control, and Perceived Control over the Punishing Stimulus".

MASTER OF EDUCATION - HONOURS
Brian Patrick Long, BA DipEd Macq. DipPhil

MASTER OF ENGINEERING - HONOURS
Mark Peter Chellew, BSc N.S.W.
Bruce Raymond Frier, BE N.S.W.
Kenneth John Halstead, BE N.S.W.
Warren Richard Parker, BSc (Eng) N.S.W.
Peter Francis Stewart, BE Syd.
Tony Dieter Strasser, BE N.S.W.
Thesis: "Modulation of Polyphase Inverters".

DOCTOR OF PHILOSOPHY
Graham Richard Carr, BSc N.S.W.
Thesis: "The Mineralogy Petrology and Geochemistry of the Zinc-Lead Silver Ores and Host Sedimentary Rocks at Lady Loretta, North-West Queensland".

Thomas Jagtenberg, BE N.S.W., MSc Manc.

Glenn Mitchell, BA DipEd N.S.W.
Thesis: "Company Community and Governmental Attitudes, and their Consequences, to Pollution at Port Kembla with Special Reference to the Electrolytic Refining and Smelting Company, 1900-1970."

Stanley Ozimic, BSc A.N.U.

Alan Thomas Twomey, BSc N.S.W.

Onn Choon Wung, MSc Waik.
Thesis: "Synthesis of Dihydroisoindole Derivatives".
UNIVERSITY OF WOLLONGONG DIPLOMATES

The Council of the University awarded Diplomas as follows:

Diploma in Accountancy

Anderson Poning Kenga, B TechAcc
P.N.G. Tech
John Vicars Kopetko, BE
Rodney Ewan Moore, BCom

Diploma in Applied Multicultural Studies

Barbara Lynne Bailey, BA Syd, DipEd NE
Roslyn June Douglas

Diploma in Computing Science

Alastair Ronald Anderson, BSc
A.N.U. DipEdMonash

Diploma in Education

Vasiliki Arvantis, BA
Margaret Joyce P. Baker, BSc
Philip John Beechen, BA A.N.U.
Michelle Ruth Brook, BA
Catherine Maureen Byrnes, BA
Colleen Joanne Carey, BA NE, DipLib N.S.W.
Joan Elaine Churchill, BSc Wales
Bruce Peter Coghill BA
David James Cook, BSc
Mariann Patricia Cowan, BA
Jill Ethel Croft, BSc Qld.
Ann Regina Cullen, BA
Christopher Phillip Cullen, BA
John Graham Currie, BA
Enola Donda, BA
Louise Anne Fantinel, BA
Rosanna Chirina Ganassin, BA
Neale Reuben Greenway, BCom
Garry John Griffith, BA
Nicholas Hubert Groenen, BA
Patricia Ann Hannah, BA
Carolyn June Hick, BA DipLib N.S.W.
Sylvia Huntley-Moore, BA
Judith Anne Jeffery, BA
Rabara Ann Johnson, BA Griff.
Sandra Ann Jolliffe, BCom
Victoria Jane Kater, BA

A Chew Ng, BA Nan
(Touche Ross & Co Chartered Accountants Prize for Business Finance)
Robert Joseph Speed, BSA BCom
Sask.

Diploma in Management Studies

Maurice Neil Neilson, BSc(Tech) N.S.W.

Diploma in Mathematics

Mark Gregory Tatam, BSc

Diploma in Metallurgy

Ross Ramsay Sutherland, BSc

Diploma in Applied Multicultural Studies

Barbara Lynne Bailey, BA Syd, DipEd NE
Roslyn June Douglas

Diploma in Computing Science

Alastair Ronald Anderson, BSc
A.N.U. DipEdMonash

Diploma in Education

Vasiliki Arvantis, BA
Margaret Joyce P. Baker, BSc
Philip John Beechen, BA A.N.U.
Michelle Ruth Brook, BA
Catherine Maureen Byrnes, BA
Colleen Joanne Carey, BA NE, DipLib N.S.W.
Joan Elaine Churchill, BSc Wales
Bruce Peter Coghill BA
David James Cook, BSc
Mariann Patricia Cowan, BA
Jill Ethel Croft, BSc Qld.
Ann Regina Cullen, BA
Christopher Phillip Cullen, BA
John Graham Currie, BA
Enola Donda, BA
Louise Anne Fantinel, BA
Rosanna Chirina Ganassin, BA
Neale Reuben Greenway, BCom
Garry John Griffith, BA
Nicholas Hubert Groenen, BA
Patricia Ann Hannah, BA
Carolyn June Hick, BA DipLib N.S.W.
Sylvia Huntley-Moore, BA
Judith Anne Jeffery, BA
Rabara Ann Johnson, BA Griff.
Sandra Ann Jolliffe, BCom
Victoria Jane Kater, BA

A Chew Ng, BA Nan
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Robert Joseph Speed, BSA BCom
Sask.

Diploma in Management Studies

Maurice Neil Neilson, BSc(Tech) N.S.W.

Diploma in Mathematics

Mark Gregory Tatam, BSc

Diploma in Metallurgy

Ross Ramsay Sutherland, BSc
Diploma in Philosophy
Blake Walter Larkin, LLB A.N.U.
Maureen Kaye Postma, BA

Diploma in Sociology
Leigh Baker, BA LLB N.S.W.

DEGREES CONFERRED BY COUNCIL

DOCTOR OF PHILOSOPHY

CHEMISTRY
Daniel Gerard Burke, BSc N.S.W.
Thesis: "The application of Gas Chromatography and Mass Spectrometry to the study of human diseases: the identification and quantitation of the urinary volatiles associated with a number of genetic defects".

GEOLOGY
Barbara Lynne Jakeman, BSc N.S.W.

Master of Engineering

CIVIL ENGINEERING
Vidyuds Vidins, BSc(Eng) N.S.W.
Thesis: "The Management of Large-Scale Heavy Industrial Projects".

Bachelor of Arts
Laurence Edward Brady
Michael Joseph Clarke
Sophia Apolonia Maria Everett
Susan Dawn Gauci
Peter Gregory O'Connor
Maurice Michael O'Sullivan
Paul Van Ryan

Bachelor of Arts - Honours
Cheryl Jean Knell, BA - (Honours Class II, Division I)

Bachelor of Commerce
Jane Alexa Baxter (with Merit)
Ian Allan Brown

Bachelor of Engineering - Honours
Ross Ramsden, BE - (Honours Class II, Division I)

Bachelor of Metallurgy
Philip Andrew Atkinson

Bachelor of Science - Honours
Don Chris Malegan, BSc - (Honours Class II, Division I)
WOLLONGONG INSTITUTE OF EDUCATION

The following candidates were admitted to diplomas and degrees of the Wollongong Institute of Education by the Chairman of Council at a Graduation Ceremony held on Friday, 23rd April, 1983.

DIPLOMA IN TEACHING

Awarded with Distinction

Christine Ann Cohen
Rina D’Acunto
Helen Gwen Gostellow
Gai Cheryl Hennessy
Carolyn Hope
Kristine Fay Jones
Patricia Florence Josh
Angela Tristiniotis
David Nelson Weymark
Raymond John Willis

Donita Alvare
Jennifer Lesley Arnold
Sharon Rose Arthur
Bruce Stephen Aylmer
Lyndall Anne Bailey
Brady John Gerard Baker
Stephen John Bennett
Mary-Jane Bignell
Mark Andrew John Blackshaw
Marian Bohin
Frances Clare Boon
Jennifer Maree Brassington
Gary Stephen Bridge
Craig Allan Brierley
Mark Philip Brimfield
Jayne Elizabeth Brunker
Peter Robert Burns
Suzanne Margaret Burt
Leonie Byrne
Carol Anne Chapman
Jane Alexandra Chessell
Maria Cicero
Leone Gai Clarke
Cheryl Jean Clendinning
Lilly Corbeska
Geoffrey Stephen Corbett
Elaine Barbara Cotterill
Maureen Patricia Creanane
Broderick Nathan Crighton
Kelly Cumming
Derek John Davies
Peter John Davies
Deborah Lyn Delaney
Vitale Lee DiMilia
Jennifer Dileva
Lynette Elizabeth Duffy
Judith Anne Durnford
Lesley Espinosa
Janet Maree Ewart
Kerryn Lee Fairfax
John Gerard Fieddley
Lorraine Margaret Francis
Rhonda Anne Fredericks
Rowlyn Margaret Gaynor
Frances Anne Geraghty

Stella Glen
Louise Ann Gough
Stephen William Gray
Gail Margaret Ann Gregory
Michelle Griffith
Maria Helen Groch
Antony Gerard Gurtner
Karen Ann Harris
Bronwyn Harrison
Mary Rose Elizabeth Harrison
Rosemary Anne Hayes
Carol Anne Henderson
Kim Irene May Hetherington
Beverley Joy Hine
Susan Christine Hobbs
Peter Hodgson
Lynda Gail Humphreys
Beth Louise Jackson
Allyson Michelle James
Kay Margaret Jepson
Jean Johnson
Wendy Anne Johnston
Maureen Anne Jones
Richard Mark Jones
Christine Kearton
Helen Konig
Donna Elizabeth Kuit
Debra Joy Lacey
Alan Leslie Leake
Tanya Maree Lean
Virginia Louise Leary
Sandra Margaret Lee
Sharon Mary Leonard
Patricia Anne Ling
Kim Genelle Lock
Julie Anne Markworth
Manolita Martinez
Dimitra Mastoris
Hughen John McConaghy
Peter Anthony McKenzie
Judith Anne McKinnon
Wendy Jane McWilliam
Allison Margaret Mealey
Kathryn Margaret Milton
Rosalind Ann Nethercott
Wendy Norris
Lynette May O’Connor
Ann Elizabeth Oliveri
Penelope Gay Olsen
James Anthony Opie
Paula Palermo
Mary Lucy Panozzo
Geoffrey Gray Parkes
Jeanette Anne Paterson
Douglas Arthur Payne
Paul Knud Petersen
Ann Pettifer
DIPLOMA IN TEACHING (Continued)

Lili Popovska
Janette Adele Power
Denise May Preston
Liberina Lidia Rea
Martha Rebic
Catherine Gail Rodgers
Athena Sarakatsanos
Rosemary Gay Sewell
Marion Ruth Short
Jo-Ann Robin Sommerville
Richard Ralph Spiewak
Lena Stefanoska
Michelle Lynne Stewart
Joy Tapsas
Christine Anne Taylor
Peter John Tenhave

COMPLETED BY EXTERNAL STUDY

Shirley June Thompson
Philippa Anne Thorn
Jennifer Anne Tobias
Suzanne Peggy Turnbull
Mark James Van Smeerdijk
James Arthur Wagner
Glen James Walker
Denis Francis Connolly Wann
Michele Mary Warburton
Kay Annette Watler
Louise Ailsa Whittaker
Donna Elizabeth Williams
Bronwyn Elizabeth Wilson
Alison Aimee Youll
Dianne Dragica Zignic

June Abbott
Marion Joy Abbott
Caroline Elizabeth Adam
Sheila Anne Adam
Helen Baker
Kathryn Susan Barlow
Christine Ann Bedford
Betty Bodel
Pauline Bonner
Colleen Mary Bosnich
Carolyn Gay Brereton
Roslyn Patricia Bushell
Pamela Jean Carter
Dianne Helen Cawston
Dawn Lorette Chadwick
Elizabeth Mary Charuk
Margaret Patricia Cheesman
Pamela Ann Cobourn
Christine Cole
Helen Dianne Colquhoun
Frances Beverley Connon
Nola Christine Cookman
Rosemary Jean Covel
Colleen Mary Curreton
Anne Margaret Damien
Deanne Llewellyn Dare
Barbara Irene Darman
Anne Patricia Dooley
Maureen Carol Drinan
Janice Aimee Durnham
Frances Cheryl Echin
Janet Mary Evans
Marion Elizabeth Fallon
Jennifer Rosemary Fitzgerald
Marian Josephine Fountain
Ann Roslyn Fox
Pamela Margaret Fox
Barbara Morea Gapps
Colleen Clarice Hawkins
Jean Elizabeth Hemmings
Sandra Carolyn Henstock
Janice Rae Hoon
Maureen Rae Hooper
Margaret Elizabeth Howison

Margaret Mary Huxley
Bronwyn Christine Ingle
Pamela Kay Jarman
Jennifer Johnson
Maree Jolly
Valerie Pauline King
Susan Carol Lacey
Glennis Elizabeth Landon
Mary Veronica Lawson
Linda Heather Leslie
Kay Susan Lewis- Driver
Linda Vera Lockett
 válido Jean Low
Helen Patricia Malins
Kay Elizabeth Mattress
Sandra Mears
Helen Elizabeth Meers
Virginia Anne Mooney
Valentina Nadji
Lynnette Noble
Catherine Anne Noyes
Elvira Anne O’Neill
Janette Hazel Packham
Beverly Helen Pedder
Dawn Gaye Plumb
Anna Martha Policinski
Sandra Anne Power
Susan Gai Richards
Patricia Mary Monica Ridgwell
Anne Patricia Roby
Wendy Rogers
Kerry Irene Rowley
Lynne Scott
Margaret Ann Shaw
Jeanette Vera Sillett
Rosemary Jane Slack
Susanne Sneddon
Bill Annette Sophier
Heather Margaret Stevens
Ulrike Renate Szewc
Gay Delburg Thew
Marie Bernadette Thew
Jarl klin Thomas
Patricia Alwyn Tribe
Phyllis Claire Trowbridge
Margaret Rose Turner
Lynette Sandra Walker
Loris Christina Adele Waterhouse
Beverley Joyline Waugh
Ann Elizabeth Weekes
Margaret Rae Weir
Denise Frances Wendt
Sylvia White
Shirley Kathleen Williams
Ronald Alan Williamson

Pamela Wilson
Georgina Beverly Wilson-Greene
Margaret Alice Wolfe
Anne Louise Wood
Janice Clarice Wood
Darlene Jennifer Woods
Elaine Joan Worsley
Christine Winifred Yates
Georgina Marilyn Yerbury
Frances Elizabeth Young

DIPLOMA IN TEACHING

English/History

Awarded with Distinction

June Anne Kryger
Christopher John Bell
Gordon Ferguson Cannon
Helen Agota Ciufici
David Kenneth Hargrave
Wendy Fay Knox

Marjaleena Koskinen
Kerry Glen Middleton
Suzanne Smith
Cheryl Lea Tolland
Kathryn Therese Wakeford

Mathematics

Awarded with Distinction

Robert James Burke
Bruce Douglas Bews
Tony Peter Giorgio
Dene Lawrence Herbert
Craig Edward Hughes

Peter Bruce Lorking
Peter William Lucas
Donna Joy McGuffie
Christine June Stewart

Physical Education

Kerry Andrianakos
Stephen John Armstrong
Brian William Battese
Robert Andrew Bradley
Tracey Louise Cross
Tracey Leanne Davey
Drew Isaac
Heather Jan Lepherd
Kathryn Gwenwa Martin

Peter William McDonald
John James McVeigh
Ian Perdrisat
David Pitchford
Susan Margaret Saunders
Rick Desmond Taylor
Susan Mary Whitby
Wayne Morris Williamson

DIPLOMA IN HEALTH AND PHYSICAL EDUCATION

Kenneth Rodney Barnes
Frederick James Booth
Winifred Anne Bright
Annette Houtman

Ian George Ludeke
Richard Ivan Ruse
Jennifer Lyn Seymour
BACHELOR OF EDUCATION (PHYSICAL AND HEALTH EDUCATION)

Awarded with Distinction

Christopher Robert Butler
Kerryn Maree Macauley
Robert John Neal
Rosemary Neal
Andrew Phillip Watt
Graeme Geoffrey Anderson
Lynette Mary Barry
David Michael Braithwaite
Lynn Bunter
Jennifer Anne Burns
Vicki Maree Davenport
Carole Lynne Eagleton
Annette May Gill
Mary Elizabeth Henderson
Grant Donald Hunt
Graham Anthony Irvin
Judith Elizabeth Lydford

BACHELOR OF EDUCATION (PHYSICAL AND HEALTH EDUCATION) (Continued)

Daniel Patrick McGoldrick
Ian Bruce McKenzie
Philip James Pearson
Roberto Alejandro Rojas
Ross Geoffrey Thomas
Nichola Susan Vance
Ingrid Dianne Wass
Paul William Wright
Mary Yatras

GRADUATE DIPLOMA IN EDUCATION

Awarded with Distinction

Ann Clifford
Judithe Hall
Suellen Phillips
Fiona Lesley Reynolds
Susan Joy Westwood
Bernadine Seraphine Carvalho
Julie-Ann Johnston

GRADUATE DIPLOMA IN EDUCATIONAL STUDIES

Environmental Education

Awarded with Distinction

Carmel Mary Godfrey
Christopher Denis Senior
David John Sivell
David Robert Worthington
Warren Argerakis
Gary Alexander Baxter
Colin Burgin
Jennifer Gaye Cameron
Mark Alexander Cameron
Mary Patricia Catley
William Boyack Chalmers
Joanne Dawn Defaveri
Robert John Freeman
Kerry Ann Hellmuth
Michael Gregory McCabe
Christopher Roy Peters
James Pettit
Helen Rodwell
Corinne Cheryl See
Mary Genevieve Sivell
Trevor Summerside
Ian Robert Thompson
Ashley Kevin Unger

Secondary Mathematics Education

Awarded with Distinction

Anne Murdoch
Brian William Underwood
Richard Edward Young
# APPENDIX 3

## APPOINTMENTS, RESIGNATIONS AND PROMOTIONS

### APPOINTMENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Designations</th>
<th>Department</th>
</tr>
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<tbody>
<tr>
<td>Mr. P.A. Bailes</td>
<td>Lecturer</td>
<td>Computing Science</td>
</tr>
<tr>
<td>Dr. B.L. Cambourne</td>
<td>Principal Lecturer</td>
<td>School of Education</td>
</tr>
<tr>
<td>Mr. Y.C. Cheah</td>
<td>Tutor</td>
<td>Electrical &amp; Computer Engineering</td>
</tr>
<tr>
<td>Dr. C.D. Cook</td>
<td>Lecturer</td>
<td>Education</td>
</tr>
<tr>
<td>Dr. D.J. Corson</td>
<td>Lecturer</td>
<td>Economics</td>
</tr>
<tr>
<td>Dr. J.F. Guest</td>
<td>Lecturer</td>
<td>Computing Science</td>
</tr>
<tr>
<td>Dr. N.A.B. Gray</td>
<td>Lecturer</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mr. F.A. Gul</td>
<td>Senior Lecturer</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mr. K.W. Hale</td>
<td>Lecturer</td>
<td>Psychology</td>
</tr>
<tr>
<td>Dr. R.M. Henry</td>
<td>Senior Lecturer</td>
<td>School of Industrial &amp; Administrative Studies</td>
</tr>
<tr>
<td>Dr. M.J. Hough</td>
<td>Principal Lecturer</td>
<td>Geology</td>
</tr>
<tr>
<td>Mr. A.C. Hutton</td>
<td>Lecturer</td>
<td>Philosophy</td>
</tr>
<tr>
<td>Mr. P.C. Hyland</td>
<td>Lecturer</td>
<td>School of Creative Arts &amp; Community Studies</td>
</tr>
<tr>
<td>Ms. E. Jeneid</td>
<td>Lecturer</td>
<td>Civil &amp; Mining Engineering School of Education</td>
</tr>
<tr>
<td>Dr. R.A. Facer</td>
<td>Lecturer</td>
<td>European Languages</td>
</tr>
<tr>
<td>Mrs. P.R. MacKay</td>
<td>Lecturer</td>
<td>Computing Science</td>
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<tr>
<td>Mrs. F.E. Roberts</td>
<td>Lecturer</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Dr. T. Higginbotham</td>
<td>Lecturer</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mrs. H.A. Maitland</td>
<td>Lecturer</td>
<td>English Literature</td>
</tr>
<tr>
<td>Dr. P. Cerone</td>
<td>Senior Tutor</td>
<td>&amp; Drama</td>
</tr>
<tr>
<td>Ms. S.K. Ooi</td>
<td>Tutor</td>
<td>Psychology</td>
</tr>
<tr>
<td>Mrs. A.K. Parker</td>
<td>Lecturer</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Ms. N.J. Ronan</td>
<td>Tutor</td>
<td>Electrical &amp; Computer Engineering</td>
</tr>
<tr>
<td>Mr. C.E. Rovere</td>
<td>Lecturer</td>
<td>Physics</td>
</tr>
<tr>
<td>Dr. R.A. Russell</td>
<td>Lecturer</td>
<td>School of Education</td>
</tr>
<tr>
<td>Mr. E.H. Salib</td>
<td>Tutor</td>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>Mr. A.R. Smith</td>
<td>Lecturer</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Dr. A.K. Tieu</td>
<td>Lecturer</td>
<td>Biology</td>
</tr>
</tbody>
</table>

### RESIGNATIONS

<table>
<thead>
<tr>
<th>Name</th>
<th>Designations</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. R.A. Facer</td>
<td>Senior Lecturer</td>
<td>Geology</td>
</tr>
<tr>
<td>Mrs. P.R. MacKay</td>
<td>Lecturer</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mrs. F.E. Roberts</td>
<td>Senior Tutor</td>
<td>History</td>
</tr>
<tr>
<td>Dr. T. Higginbotham</td>
<td>Lecturer</td>
<td>Computing Science</td>
</tr>
<tr>
<td>Mrs. H.A. Maitland</td>
<td>Lecturer</td>
<td>Psychology</td>
</tr>
<tr>
<td>Dr. P. Cerone</td>
<td>Senior Tutor</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Ms. M. Greenwell</td>
<td>Research Associate</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mr. N.C. Canosa</td>
<td>Tutor</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mrs. J. Hiddlestone</td>
<td>Tutor</td>
<td>Psychology</td>
</tr>
<tr>
<td>Miss D. O'Neill</td>
<td>Tutor</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mr. G.J. Hayes</td>
<td>Senior Tutor</td>
<td>English Literature</td>
</tr>
<tr>
<td>Mr. F.W. Osborne</td>
<td>Principal Tutor</td>
<td>&amp; Drama (retired)</td>
</tr>
<tr>
<td>Professor R. Duncan</td>
<td>Professor</td>
<td>School of Creative Arts &amp; Community Studies (retired)</td>
</tr>
<tr>
<td>Assoc. Professor S.E. Bonamy</td>
<td>Associate Professor</td>
<td>History (retired)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanical Engineering (retired)</td>
</tr>
</tbody>
</table>
Mr. G. Moliterno  
Mr. S.K. Ooi  
Mr. P.C. Hyland  
Mr. E.H. Salib  
Mrs. M.J. Heyligers  

Ms. E. Jeneid  
Mr. H. Akitt  
Mr. N. Aylward  
Miss M.L. Powell  
Mrs. A.K. Parker  

PROMOTIONS

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>School/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. M.J. Boyd</td>
<td>Senior Lecturer</td>
<td>European Languages</td>
</tr>
<tr>
<td>Mr. D. Davis</td>
<td>Senior Lecturer</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Mr. P.V. George</td>
<td>Senior Tutor</td>
<td>Philosophy</td>
</tr>
<tr>
<td>Dr. C.M. Gulati</td>
<td>Senior Lecturer</td>
<td>Physics</td>
</tr>
<tr>
<td>Mr. H.A.L. Jeanjean</td>
<td>Senior Tutor</td>
<td>School of Creative Arts &amp; Community Studies (retired)</td>
</tr>
<tr>
<td>Miss H.A. Maitland</td>
<td>Senior Tutor</td>
<td>School of Creative Arts &amp; Community Studies (retired)</td>
</tr>
<tr>
<td>Dr. D.G. Montgomery</td>
<td>Senior Lecturer</td>
<td>External Studies Unit (retired)</td>
</tr>
<tr>
<td>Dr. D.R. Murray</td>
<td>Senior Lecturer</td>
<td>School of Creative Arts &amp; Community Studies</td>
</tr>
<tr>
<td>Dr. G.C. Nanson</td>
<td>Senior Lecturer</td>
<td>English Literature &amp; Drama</td>
</tr>
<tr>
<td>Dr. J.M. Wieland</td>
<td>Senior Lecturer</td>
<td></td>
</tr>
<tr>
<td>Mr. P.L. Shepherd</td>
<td>Senior Lecturer</td>
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</table>
## STUDY LEAVE AND PROFESSIONAL EXPERIENCE LEAVE 1982

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Duration (Weeks)</th>
<th>Principal Location</th>
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<tbody>
<tr>
<td>Prof. M.G.A. Wilson</td>
<td>Geography</td>
<td>26</td>
<td>Australia</td>
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<tr>
<td>Mr. B.H. Andrew</td>
<td>Accountancy</td>
<td>22</td>
<td>U.K.</td>
</tr>
<tr>
<td>Prof. J. Blake</td>
<td>Mathematics</td>
<td>26</td>
<td>U.K./U.S.A.</td>
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<tr>
<td>Dr. P.G. Burton</td>
<td>Chemistry</td>
<td>22</td>
<td>Europe/U.K.</td>
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<tr>
<td>Dr. P.C. D'Alton</td>
<td>Sociology</td>
<td>26</td>
<td>Australia</td>
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<td>Dr. P.C. Arnold</td>
<td>Mech. Eng.</td>
<td>3</td>
<td>U.K./Europe</td>
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<tr>
<td>Dr. A.J. Fielding</td>
<td>Education</td>
<td>20</td>
<td>U.K.</td>
</tr>
<tr>
<td>Miss D.M.E. Gillam</td>
<td>English Language</td>
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<td>H.P.S.</td>
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There were no major buildings authorised for construction in 1982. A Science II building has been designed to tender stage but has not been included in the Commonwealth Government approved programme for 1983. The need for this building has been recognised by the Commonwealth Tertiary Education Commission in its report for the 1982-84 Triennium and it is hoped the project may be approved for commencement in 1984.

The Minor Building and Site Development Projects in 1982 comprised:

- Upgrading of electrical supply and replacement of main switchboard to No. 1 sub-station $39,000
- Construction of a laboratory extension to Buildings 6 and 7 for Mechanical Engineering $110,000
- Construction of extension to North Wing of Social Science Building to provide office accommodation for 16 staff $181,000

The upgrading of the No. 1 substation which involved structural modification was at the urging of the Illawarra County Council and has been a long standing pressing need.

The extension to Buildings 6 and 7 provided much needed laboratory space for Mechanical Engineering, which could not be provided elsewhere or by alterations to other buildings. It is hoped that design funds become available for the planning of a new Administration Building; the construction of which would allow the space of the present inadequate Administration Building to be released to Engineering departments.

The extension to the North Wing of the Social Science Building provided office accommodation for one Head of School and fifteen lecturers. This space requirement was a direct consequence of the federation of the University and Institute of Education.
### UNIVERSITY OF WOLLONGONG

**APPENDIX 6**

**FULL-TIME STAFF AS AT 30TH APRIL, 1982**

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### INDEPENDENT OPERATIONS

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<td>Administrative Officers</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Administrative Assistants</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Clerk, Typist etc.</td>
<td>1</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>9</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Building Planning and Maintenance Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Tradesmen</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>7</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL STAFF</strong></td>
<td>77</td>
<td>45</td>
<td>122</td>
</tr>
</tbody>
</table>
GRANTS AND DONATIONS

Australian Research Grants Scheme Projects

Assay of Neurotransmitters Released from Hippocampal Slices and Evaluation of Neuronal Markers 2,000
Australian Science Policy: The State of University Research 13,962
Britain, The United States and The Korean War 3,250
Changing Definitions of Social Psychology 5,960
Devonian Biostratigraphy of The Capertree Geanticline 2,500
Dynamics of Cavitation Damage to Turbomachinery 4,076
Experimental Investigation on the Shedding of the Vorticity by Sharp Edges and the Computation of Axisymmetric Vortex Sheets 17,670
Fast Photo-Electric Photometry of Astronomical Sources 9,500
Mathematics Models of Growth and Form in Sea Shells and Plants 14,536
Metabolite Levels in the Cytosol and Mitochondria of Plant Leaf Cells 9,700
Microwave Wavefront Reconstruction 3,900
Nature of Chemical Bonds to Metals Precise Thoretical Studies 5,000
Photosynthesis and Osmoregulation in Marine Algae 25,010
Plastic Properties of Ductile Sheet Metals 7,200
Properties and Applications of Shape Memory Alloys 17,638
Solid State Spectroscopy Electronic and Vibrational Spectra of Solids 10,000
Studies on the Evolution of Mammalian Endothermy 8,630
Transitions: A Study of Men Experiencing Change in Retirement 13,000
The Transition of the Chronically Ill from Hospital to Community 12,500
Vitamin C Megatherapy. The Sociology of Scientific Controversy 7,600

National Health and Medical Research Council

Application of GC -MS (Chemistry) 1,859
Ovum Transport (Mathematics) 2,398
Spectrographic Analysis (Biology) 3,100
National Energy Research Development and Demonstration Council

Coal Storing Bin Design - (Mechanical Engineering) 43,530
Electrostatic Precipitators - (Electrical Engineering) 23,666
Low Rank Oil Shales - (Geology) 8,278
Pneumatic Conveying of Coal - (Mechanical Engineering) 19,262
Reflectance of Oriented Vitrinite - (Geology) 6,493
Studies on Coal Carbonisation - (Geology) 46,599

Special Purpose Funds (Research)

Aerosol Research Fund
(Chemistry) 200

Amino Acid Research
(Biology) 592

Australian Accounting Research Foundation
(Accountancy) 5,020

Australian Institute of Nuclear Science and Engineering
Post Doctoral Fellowship (Chemistry) 11,323

Australian Iron and Steel Assoc.
Prof. N. Standish (Metallurgy) 5,058

Australian Welding Research Association Postgraduate
Award (Chemistry) 7,408

Auto Monitor and Forward Feed
(Chemistry) 8,908

Biology Special Research
(Biology) 1,424

Bourke Pre-School Research and Support
(Education) 800

Bulk Solids Handling
(Mechanical Engineering) 4,853

Colonial Sugar Refining Company
Julia Creek Oil Shales Analysis (Chemistry) 39,925

Department of Education (Australia)
Prof. R. Johnston (History and Philosophy of Science)
Prof. S. Hill (Sociology) 34,381

Department of Health (Australia)
Counselling of Patients (Psychology) 53,935

Department of Science and Technology
Prof. R. Johnston (History and Philosophy Science) 5,000

Education Research and Development Committee
Analysis of Children Retelling - Dr B. Cambourne
(Institute of Advanced Education) 803

Analysis of French and Italian Programs Dr. D. Hawley
(European Languages) 21,325
<table>
<thead>
<tr>
<th>Organization</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growing Up in Illawarra Dr. W. Mitchell (History)</td>
<td>8,474</td>
</tr>
<tr>
<td>Processing and Comprehending Technical Prose - Dr. B. Cambourne (Institute of Advanced Education)</td>
<td>8,990</td>
</tr>
<tr>
<td>Electrical Research Board</td>
<td></td>
</tr>
<tr>
<td>Transport of Pulverised Coal Dr. P Arnold and Dr. A.G. McLean (Mechanical Engineering)</td>
<td>50,010</td>
</tr>
<tr>
<td>Esso Australia</td>
<td></td>
</tr>
<tr>
<td>Rundle Oil Shale Analysis (Geology)</td>
<td>5,511</td>
</tr>
<tr>
<td>Family and Schooling in the Illawarra Dr. W. Mitchell (Education)</td>
<td>600</td>
</tr>
<tr>
<td>Geology Fuel Research</td>
<td>6,572</td>
</tr>
<tr>
<td>Geology General Donation</td>
<td>7,785</td>
</tr>
<tr>
<td>Geology and Petrophysics Research</td>
<td>500</td>
</tr>
<tr>
<td>Hippocampal Spike Research (Biology)</td>
<td>1,600</td>
</tr>
<tr>
<td>History of Nursing (History)</td>
<td>500</td>
</tr>
<tr>
<td>Illawarra Handicapped Persons Trust</td>
<td></td>
</tr>
<tr>
<td>Illawarra Regional Leisure Committee (Institute of Advanced Education)</td>
<td>8,297</td>
</tr>
<tr>
<td>Industrial Minerals Research (Geology)</td>
<td>50</td>
</tr>
<tr>
<td>Learning Environment Research (Education)</td>
<td>2,300</td>
</tr>
<tr>
<td>Mechanical Engineering Research and Development</td>
<td>697</td>
</tr>
<tr>
<td>Ministry of Aboriginal Affairs (Economics)</td>
<td>6,233</td>
</tr>
<tr>
<td>Monier Resources</td>
<td></td>
</tr>
<tr>
<td>Fly Ash Research (Civil Engineering)</td>
<td>6,750</td>
</tr>
<tr>
<td>National Parks and Wildlife Department</td>
<td></td>
</tr>
<tr>
<td>Bushfire Research (Geography)</td>
<td>1,000</td>
</tr>
<tr>
<td>New South Wales Science and Technology Council</td>
<td></td>
</tr>
<tr>
<td>(History and Philosophy of Science)</td>
<td>4,000</td>
</tr>
<tr>
<td>Postgraduate Scholarships Account</td>
<td></td>
</tr>
<tr>
<td>Department of Biology</td>
<td>1,000</td>
</tr>
<tr>
<td>Department of Chemistry</td>
<td>1,500</td>
</tr>
<tr>
<td>Department of Civil Engineering</td>
<td>500</td>
</tr>
<tr>
<td>Department of Education</td>
<td>500</td>
</tr>
<tr>
<td>Department of English Literature and Drama</td>
<td>250</td>
</tr>
<tr>
<td>Department of Geography</td>
<td>1,025</td>
</tr>
<tr>
<td>Department of History</td>
<td>2,000</td>
</tr>
<tr>
<td>Department of History and Philosophy of Science</td>
<td>1,250</td>
</tr>
<tr>
<td>Department of Mathematics</td>
<td>500</td>
</tr>
<tr>
<td>Department of Mechanical Engineering</td>
<td>500</td>
</tr>
<tr>
<td>Department of Metallurgy</td>
<td>500</td>
</tr>
<tr>
<td>Department of Psychology</td>
<td>2,000</td>
</tr>
<tr>
<td>Department of Sociology</td>
<td>1,750</td>
</tr>
<tr>
<td>Population Research (Geography)</td>
<td></td>
</tr>
<tr>
<td>Radio Research Board</td>
<td></td>
</tr>
<tr>
<td>Dr. F. Paoloni (Electrical Engineering)</td>
<td>2,050</td>
</tr>
<tr>
<td>Research and Development in Mining Engineering (Department of Civil and Mining Engineering)</td>
<td>231</td>
</tr>
<tr>
<td>Research Fund for Community Studies Rheem Australia Limited</td>
<td>4,000</td>
</tr>
<tr>
<td>Commercial Solar Project (Mechanical Engineering)</td>
<td>9,775</td>
</tr>
<tr>
<td>Social Welfare Research Centre Ethnicity and Class (Centre for Multicultural Studies)</td>
<td>1,952</td>
</tr>
<tr>
<td>Migrant Safety Report (Centre for Multicultural Studies)</td>
<td>2,010</td>
</tr>
<tr>
<td>South Coast Research Account (Geography)</td>
<td>450</td>
</tr>
<tr>
<td>State Planning and Environment Commission Air Analysis (Chemistry)</td>
<td>1,500</td>
</tr>
<tr>
<td>Sundry Donation for Research Department of Accountancy</td>
<td>20</td>
</tr>
<tr>
<td>Department of Civil and Mining Engineering</td>
<td>103</td>
</tr>
<tr>
<td>Department of Chemistry</td>
<td>1,500</td>
</tr>
<tr>
<td>Department of Electrical and Computer Engineering</td>
<td>4,200</td>
</tr>
<tr>
<td>Department of Mathematics</td>
<td>675</td>
</tr>
<tr>
<td>Department of Metallurgy</td>
<td>3,990</td>
</tr>
<tr>
<td>Department of Physics</td>
<td>406</td>
</tr>
<tr>
<td>UNESCO - Literature Search (Sociology)</td>
<td>5,000</td>
</tr>
<tr>
<td>L.L. Viney Research Fund - (Psychology)</td>
<td>1,440</td>
</tr>
<tr>
<td>Water Research Foundation of Australia Flood Mitigation Programmes (Economics)</td>
<td>2,500</td>
</tr>
<tr>
<td>X-Ray Diffusion Research Fund (Geology)</td>
<td>308</td>
</tr>
</tbody>
</table>

**Special Purpose Funds**

(Scholarship, Bursaries, Prizes, etc.)

<p>| Australian Institute of Nuclear Science and Engineering Studentships - Mathematics | 8,246 |
| - Chemistry | 5,105 |
| Australasian Institute of Mining and Metallurgy - Mining Prize | 100 |
| - Metallurgy Prize | 100 |
| - Geology Prize | 100 |
| Australian Institute of Metals (Port Kembla) Prize - Metallurgy | 80 |
| Australian Institute of Physics (NSW) Prize - Physics | 50 |
| Australian Psychological Society Prize - Psychology | 200 |
| Australian Society of Accountants Prize - Accountancy | 300 |
| Australian Institute of Management - Scholarship in Management Studies | 2,000 |</p>
<table>
<thead>
<tr>
<th>Prize Title</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Beckmann Memorial Prize in Physical Chemistry</td>
<td>44</td>
</tr>
<tr>
<td>Biology Prize</td>
<td>79</td>
</tr>
<tr>
<td>Blue Circle Cement (Maldon) - Metallurgy Prize</td>
<td>25</td>
</tr>
<tr>
<td>Clothing and Allied Trade Union Postgraduate Award</td>
<td>1,264</td>
</tr>
<tr>
<td>Darryl Condon Memorial Prize</td>
<td>22</td>
</tr>
<tr>
<td>Commonwealth Banking Corporation Prize</td>
<td>20</td>
</tr>
<tr>
<td>Corporate Affairs Commission Prize</td>
<td>100</td>
</tr>
<tr>
<td>G.W. Daniels Prize</td>
<td>50</td>
</tr>
<tr>
<td>Evan Phillips Memorial Prize</td>
<td>249</td>
</tr>
<tr>
<td>Foundation Prize in Geology</td>
<td>95</td>
</tr>
<tr>
<td>Bert Halpern Memorial Prize</td>
<td>122</td>
</tr>
<tr>
<td>Illawarra County Council Award</td>
<td>6,350</td>
</tr>
<tr>
<td>Austin Keane Memorial Prize</td>
<td>105</td>
</tr>
<tr>
<td>John Lysaght Australia Prize - Metallurgy</td>
<td>30</td>
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<tr>
<td>Mathematics Prize Fund</td>
<td>159</td>
</tr>
<tr>
<td>Miscellaneous Workers Union Postgraduate Award History</td>
<td>6,000</td>
</tr>
<tr>
<td>N.S.W. Teachers Federation Postgraduate Award</td>
<td>10,750</td>
</tr>
<tr>
<td>Gina Savage Prize - Faculty of Science</td>
<td>50</td>
</tr>
<tr>
<td>Staff Prizes in Physics</td>
<td>30</td>
</tr>
<tr>
<td>Statistical Society of Australia (NSW) Mathematics Prize</td>
<td>50</td>
</tr>
<tr>
<td>Sperry Univac Postgraduate Award in Computing Science</td>
<td>4,000</td>
</tr>
<tr>
<td>Touche Ross and Co. Prize in Accountancy</td>
<td>50</td>
</tr>
<tr>
<td>A.J. and I. Waters Geology Prize</td>
<td>237</td>
</tr>
<tr>
<td>Western Mining Prizes - Mining</td>
<td>450</td>
</tr>
</tbody>
</table>

**Special Purpose Funds (Others)**

<table>
<thead>
<tr>
<th>Fund Title</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Council of Trade Unions History of the A.C.T.U.</td>
<td>976</td>
</tr>
<tr>
<td>Australian Institute of Management - Donation for Books</td>
<td>300</td>
</tr>
<tr>
<td>A.D.A.B. - Oil and Coal Shale Course</td>
<td>15,424</td>
</tr>
<tr>
<td>A.I.I.O.P. - Computing Science Project</td>
<td>4,400</td>
</tr>
<tr>
<td>Category</td>
<td>Amount</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Department of Science and Technology - Japan/Australia Agreement - Biology</td>
<td>7,500</td>
</tr>
<tr>
<td>Sundry Donations - English Language</td>
<td>306</td>
</tr>
<tr>
<td>- English Literature and Drama</td>
<td>680</td>
</tr>
<tr>
<td>Theatre South - P.D.S. Appeal</td>
<td>10,118</td>
</tr>
<tr>
<td>The Illawarra Credit Union - Employment Scholarship</td>
<td>6,000</td>
</tr>
<tr>
<td>Wollongong University Sundry Donations</td>
<td>6,135</td>
</tr>
<tr>
<td>Year</td>
<td>Statement of Balances (All Funds) at 31 December, 1982</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>1982</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>General Recurrent Fund as per Annexure A</td>
</tr>
<tr>
<td></td>
<td>Equipment Grant as per Annexure C</td>
</tr>
<tr>
<td></td>
<td>Special Purpose Funds (Research) as per Annexure E</td>
</tr>
<tr>
<td></td>
<td>Other Special Purpose Funds as per Annexure F</td>
</tr>
<tr>
<td></td>
<td>International House as per Annexure G</td>
</tr>
<tr>
<td>1982</td>
<td>Total Funds</td>
</tr>
</tbody>
</table>

**Represented by:**

**Investments**
- Government Securities: 200,000
- Semi-Government Securities maturing later than 12 months from balance date: 700,000
- Interest Bearing Deposits maturing later than 12 months from balance date: 1,550,000
- Semi-Government Securities maturing within 12 months from balance date: 100,000
- Interest Bearing Deposits maturing within 12 months from balance date: 7,698,956
- Current Assets:
  - Cash on hand: 10,870
  - sundry advances: 105,287
  - Interest Bearing Deposits: 72,987
  - Central Store Inventory (Note 6): 37,987
  - International House (Note 7): 211,466

**Less Current Liabilities**
- Cash Overdrawn: 1,132,961
- sundry creditors and accrued expenses: 54,568
- Government Grant Received in Advance (Note 10): 5,570,000
- Westpac Bank Loan for International House: 211,466

**Provisions**
- Long Service Leave (Note 11): 817,728
- State Superannuation Pension Subsidy (Note 11): 325,563
- Professional Superannuation & Pension Scheme Non-Contributory Pension (Note 11): 914,041
- Repairs, Maintenance and Replacements: 58,900

**Total**
- 1,718,132
- 7,156,090
- 51,191,927
ANNEXURE A
THE UNIVERSITY OF WOLLONGONG
GENERAL RECURRENT FUND
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 DECEMBER, 1982

<table>
<thead>
<tr>
<th>1981</th>
<th>Note</th>
<th>1982</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>15,739,000</td>
<td></td>
<td>19,851,000</td>
<td></td>
</tr>
<tr>
<td>28,502</td>
<td></td>
<td>115,668</td>
<td></td>
</tr>
<tr>
<td>15,767,502</td>
<td></td>
<td>248,000</td>
<td></td>
</tr>
</tbody>
</table>

Income

- Commonwealth Government Grants
- Miscellaneous
- Transfer from Special Purpose Account

Expenditure

- Academic Activities 2
- Academic Services 3
- Student Services 4
- General University Services 5
- Public Services

Income

- Deficiency for Year
- Add - Adjustments for Prior Years

Expenditure

- Deficiency of 31 December, 1982 $32,457 DR.
**ANNEXURE B**

**THE UNIVERSITY OF WOLLONGONG**

**BUILDING PROJECT GRANT**

**STATEMENT INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 DECEMBER, 1982**

<table>
<thead>
<tr>
<th></th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Government Grants</td>
<td>228,000</td>
<td>330,000</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Building Projects, etc.</td>
<td>228,000</td>
<td>330,000</td>
</tr>
<tr>
<td></td>
<td>1981</td>
<td>1982</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Government Grant</td>
<td>747,000</td>
<td>1,010,000</td>
</tr>
<tr>
<td>Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Equipment</td>
<td>558,930</td>
<td>795,136</td>
</tr>
<tr>
<td>Replacement Equipment</td>
<td>28,080</td>
<td>27,523</td>
</tr>
<tr>
<td>Computing</td>
<td>146,172</td>
<td>216,469</td>
</tr>
<tr>
<td></td>
<td>733,182</td>
<td>1,039,128</td>
</tr>
<tr>
<td>Deficiency for Year</td>
<td>(13,818)</td>
<td>29,128</td>
</tr>
<tr>
<td>Accumulated Balance at 1 January 1982</td>
<td>69,906</td>
<td>83,722</td>
</tr>
<tr>
<td>Balance at 31 December 1982</td>
<td><strong>$ 83,722</strong></td>
<td><strong>$ 54,594</strong></td>
</tr>
<tr>
<td></td>
<td>1981</td>
<td>1982</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Government Grant</td>
<td>90,000</td>
<td>105,000</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries and associated charges</td>
<td>79,931</td>
<td></td>
</tr>
<tr>
<td>Maintenance (materials, etc.)</td>
<td>9,009</td>
<td>4,149</td>
</tr>
<tr>
<td>Research Publications, Books and Periodicals</td>
<td>1,060</td>
<td>679</td>
</tr>
<tr>
<td><strong>Total Expenditure</strong></td>
<td><strong>$ 90,000</strong></td>
<td><strong>$ 105,000</strong></td>
</tr>
</tbody>
</table>
STATEMENT OF RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31 DECEMBER, 1982

<table>
<thead>
<tr>
<th></th>
<th>Balance at 1 January 1982</th>
<th>Receipts</th>
<th>Payments</th>
<th>Balance at 31 December 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Research Grants Committee</td>
<td>13,482</td>
<td>193,652</td>
<td>190,400</td>
<td>16,734</td>
</tr>
<tr>
<td>National Health and Medical Research Council</td>
<td>6,576</td>
<td>3,606</td>
<td>11,132</td>
<td>950 DR.</td>
</tr>
<tr>
<td>National Energy Research, Development and Demonstration Council</td>
<td>9,345</td>
<td>147,775</td>
<td>208,781</td>
<td>56,661 DR.</td>
</tr>
<tr>
<td>Other Grants and Donations</td>
<td>210,593</td>
<td>371,658</td>
<td>334,746</td>
<td>255,505</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>262,936</strong></td>
<td><strong>716,491</strong></td>
<td><strong>745,059</strong></td>
<td><strong>214,628</strong></td>
</tr>
</tbody>
</table>
### ANNEXURE F

**OTHER SPECIAL PURPOSE FUNDS**

**STATEMENT OF RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31 DECEMBER, 1982**

<table>
<thead>
<tr>
<th>Fund Description</th>
<th>Balance at 1 January 1982</th>
<th>Receipts</th>
<th>Payments</th>
<th>Balance at 31 December 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholarships, Bursaries &amp; Prizes</td>
<td>22,639</td>
<td>67,799</td>
<td>71,089</td>
<td>19,349</td>
</tr>
<tr>
<td>Special Services Appropriation Account</td>
<td>256,545</td>
<td>206,592</td>
<td>248,000</td>
<td>215,137</td>
</tr>
<tr>
<td>General Development Account</td>
<td>570,626</td>
<td>549,650</td>
<td>165,479</td>
<td>954,797</td>
</tr>
<tr>
<td>Advanced Education Development Account</td>
<td>-</td>
<td>462,086</td>
<td>34,422</td>
<td>427,664</td>
</tr>
<tr>
<td>Professorial Superannuation &amp; Pension Scheme</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managed Funds Accounts</td>
<td>6,781</td>
<td>21,513</td>
<td>-</td>
<td>28,294</td>
</tr>
<tr>
<td>Widows Annuity Accumulation Fund</td>
<td>28,689</td>
<td>3,873</td>
<td>2,598</td>
<td>30,164</td>
</tr>
<tr>
<td>General</td>
<td>254,423</td>
<td>693,442</td>
<td>625,990</td>
<td>321,875</td>
</tr>
<tr>
<td>Trust, Suspense &amp; Working Accounts</td>
<td>141,673</td>
<td>2,062,846</td>
<td>2,140,511</td>
<td>44,008</td>
</tr>
<tr>
<td></td>
<td>$ 1,281,576</td>
<td>$ 6,067,801</td>
<td>$ 3,208,089</td>
<td>$ 2,061,288</td>
</tr>
</tbody>
</table>
## Income and Expenditure Statement for Year Ended 31 December, 1982

### Income

<table>
<thead>
<tr>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>$45,256</td>
<td>50,300</td>
</tr>
<tr>
<td>$301,627</td>
<td>323,748</td>
</tr>
<tr>
<td>$8,770</td>
<td>2,986</td>
</tr>
<tr>
<td>$11,122</td>
<td>21,187</td>
</tr>
<tr>
<td>$1,605</td>
<td></td>
</tr>
<tr>
<td>$7,324</td>
<td>19,065</td>
</tr>
<tr>
<td>$1,955</td>
<td>2,205</td>
</tr>
<tr>
<td>$56,546</td>
<td></td>
</tr>
<tr>
<td><strong>434,205</strong></td>
<td><strong>418,991</strong></td>
</tr>
</tbody>
</table>

### Expenditure

#### Administration

<table>
<thead>
<tr>
<th>Item</th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions and Grants</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>Entertainment</td>
<td></td>
<td>195</td>
</tr>
<tr>
<td>Electricity</td>
<td>23,116</td>
<td></td>
</tr>
<tr>
<td>Garbage Collection</td>
<td>4,467</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>1,531</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>9,106</td>
<td></td>
</tr>
<tr>
<td>Office Expenses</td>
<td>1,332</td>
<td></td>
</tr>
<tr>
<td>Printing &amp; Photocopying</td>
<td>675</td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td>13,633</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>198</td>
<td></td>
</tr>
<tr>
<td>Wardens Allowance</td>
<td>2,998</td>
<td></td>
</tr>
<tr>
<td>Water Rates</td>
<td>4,959</td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; Wages</td>
<td>37,935</td>
<td></td>
</tr>
<tr>
<td>Legal Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>79,873</strong></td>
<td><strong>100,245</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Cleaning and Maintenance

<table>
<thead>
<tr>
<th>Item</th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porter Street Access Road</td>
<td></td>
<td>3,856</td>
</tr>
<tr>
<td>Cleaning Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture &amp; Equipment</td>
<td>10,087</td>
<td></td>
</tr>
<tr>
<td>Laundry &amp; Dry Cleaning</td>
<td>4,266</td>
<td></td>
</tr>
<tr>
<td>Gardening &amp; Landscape</td>
<td>406</td>
<td></td>
</tr>
<tr>
<td>Minor Repairs Electrical</td>
<td>4,607</td>
<td></td>
</tr>
<tr>
<td>Minor Repairs Non Electrical</td>
<td>7,651</td>
<td></td>
</tr>
<tr>
<td>Major Repairs &amp; Maintenance</td>
<td>10,108</td>
<td></td>
</tr>
<tr>
<td>Replacement Soft Furnishing</td>
<td>14,826</td>
<td></td>
</tr>
<tr>
<td>Uniforms &amp; Protective Clothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; Wages</td>
<td>70,253</td>
<td></td>
</tr>
<tr>
<td><strong>192,094</strong></td>
<td><strong>121,600</strong></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Income</td>
<td>Expenditure</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>1981</td>
<td>$103,792</td>
<td>$176,539</td>
</tr>
<tr>
<td>1982</td>
<td>$142,266</td>
<td>$32,716</td>
</tr>
</tbody>
</table>

**Expenditure (Cont'd.)**

<table>
<thead>
<tr>
<th>Item</th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catering</td>
<td>$20,603</td>
<td>$162,266</td>
</tr>
<tr>
<td>Loan Interest</td>
<td>$8,797</td>
<td>$34,283</td>
</tr>
<tr>
<td>Provision for Long Service Leave</td>
<td>$1,062</td>
<td>$3,716</td>
</tr>
<tr>
<td>Repairs, Maintenance &amp; Replacement</td>
<td>$29,000</td>
<td>$29,000</td>
</tr>
<tr>
<td>Other</td>
<td>$30,062</td>
<td>$32,716</td>
</tr>
<tr>
<td>Excess of Expenditure over Income</td>
<td>$1,006</td>
<td>$1,006</td>
</tr>
<tr>
<td>Less: Advance from University of Wollongong</td>
<td></td>
<td>$263</td>
</tr>
<tr>
<td>Transfer from Provisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance as at 31st December 1982</td>
<td>$11,298</td>
<td>$11,298</td>
</tr>
<tr>
<td>Less: Accumulated Surplus at 1st January 1982</td>
<td>$11,298</td>
<td>$11,298</td>
</tr>
<tr>
<td>Add: Adjustments for Prior Years</td>
<td>$13,505</td>
<td>$13,505</td>
</tr>
<tr>
<td>Balance as at 31st December 1982</td>
<td>$2,441</td>
<td>$2,441</td>
</tr>
</tbody>
</table>
Annexure H

The University of Wollongong

Notes To and Forming Part of the Financial Statements

For the Year Ended 31 December, 1982

Note 1. Accounting Policies

(i) General Fund, Special Research Grant, Special Equipment Grant, Minor Works Grant and International House - an accrual basis of accounting is adopted in recording transactions for these accounts. Income earned or due and expenditure incurred is brought to account in the year to which it applies.

(ii) Special Purpose Funds and Australian Research Grants Committee - a cash flow basis of accounting is used to record the transactions within these funds.

(iii) Non-Monetary Assets - with the exception of stores stock, monetary assets only are carried forward in the Statement of Balances. Other non-monetary assets are written off in the year of purchase against the relevant grant.

Note 2. Academic Activities

Teaching and Research

<table>
<thead>
<tr>
<th></th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>7,208,396</td>
<td>9,677,017</td>
</tr>
<tr>
<td>Salary Related Costs</td>
<td>970,593</td>
<td>1,468,194</td>
</tr>
<tr>
<td>Maintenance</td>
<td>517,385</td>
<td>530,932</td>
</tr>
<tr>
<td>Conference and Study Leave</td>
<td>84,447</td>
<td>99,989</td>
</tr>
<tr>
<td>New Appointment Expenses</td>
<td>45,890</td>
<td>46,164</td>
</tr>
<tr>
<td>Other</td>
<td>5,377</td>
<td>24,209</td>
</tr>
<tr>
<td><strong>Total Teaching and Research</strong></td>
<td><strong>8,832,688</strong></td>
<td><strong>11,846,485</strong></td>
</tr>
</tbody>
</table>

Research Only

<table>
<thead>
<tr>
<th></th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>203,371</td>
<td>221,892</td>
</tr>
<tr>
<td>Salary Related Costs</td>
<td>10,126</td>
<td>12,717</td>
</tr>
<tr>
<td>Maintenance</td>
<td>21,977</td>
<td>22,467</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>306</td>
</tr>
<tr>
<td><strong>Total Research</strong></td>
<td><strong>235,674</strong></td>
<td><strong>257,382</strong></td>
</tr>
</tbody>
</table>

**Total Academic Activities**

<table>
<thead>
<tr>
<th></th>
<th>1981</th>
<th>1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and Research</td>
<td>8,832,688</td>
<td>11,846,485</td>
</tr>
<tr>
<td>Research Only</td>
<td>235,674</td>
<td>257,382</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,068,362</strong></td>
<td><strong>12,103,867</strong></td>
</tr>
</tbody>
</table>
### ANNEXURE H (Cont'd.)

#### Note 3. ACADEMIC SERVICES

<table>
<thead>
<tr>
<th>Service</th>
<th>Library</th>
<th>Computing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>930,003</td>
<td>252,326</td>
</tr>
<tr>
<td>Salary Related Costs</td>
<td>68,610</td>
<td>266,492</td>
</tr>
<tr>
<td>Purchase of Books,</td>
<td>576,101</td>
<td>20,191</td>
</tr>
<tr>
<td>Periodicals etc.</td>
<td>61,988</td>
<td>94,575</td>
</tr>
<tr>
<td>Maintenance</td>
<td>256</td>
<td>96,260</td>
</tr>
<tr>
<td>Other</td>
<td>576,101</td>
<td>20,191</td>
</tr>
<tr>
<td><strong>TOTAL Library</strong></td>
<td><strong>1,636,956</strong></td>
<td><strong>419,552</strong></td>
</tr>
<tr>
<td>Salaries</td>
<td>252,326</td>
<td>266,492</td>
</tr>
<tr>
<td>Salary Related Costs</td>
<td>20,191</td>
<td>23,890</td>
</tr>
<tr>
<td>Supplies</td>
<td>49,475</td>
<td>68,538</td>
</tr>
<tr>
<td>Maintenance</td>
<td>94,547</td>
<td>96,260</td>
</tr>
<tr>
<td>Other</td>
<td>3,013</td>
<td>2,025</td>
</tr>
<tr>
<td><strong>TOTAL Computing</strong></td>
<td><strong>419,552</strong></td>
<td><strong>456,005</strong></td>
</tr>
</tbody>
</table>

Other Academic Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Education Resources Centre</th>
<th>Scientific Workshop</th>
<th>Printery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>92,102</td>
<td>20,217</td>
<td>30,739</td>
</tr>
<tr>
<td><strong>TOTAL Other Academic Services</strong></td>
<td><strong>193,058</strong></td>
<td><strong>95,192</strong></td>
<td><strong>50,201</strong></td>
</tr>
</tbody>
</table>

**TOTAL ACADEMIC SERVICES** | **$2,249,566** | **$2,476,570** |

#### Note 4. STUDENT SERVICES

<table>
<thead>
<tr>
<th>Service</th>
<th>Health Services</th>
<th>Counselling</th>
<th>Scholarships</th>
<th>Union/Sports Association</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>445</td>
<td>50,095</td>
<td>74,553</td>
<td>98,395</td>
</tr>
<tr>
<td><strong>TOTAL STUDENT SERVICES</strong></td>
<td><strong>$223,688</strong></td>
<td><strong>$248,577</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Note 5. GENERAL UNIVERSITY SERVICES

<table>
<thead>
<tr>
<th>Service</th>
<th>Administration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>1,585,813</td>
<td>1,082,046</td>
</tr>
<tr>
<td>Salary Related Costs</td>
<td>180,503</td>
<td>279,033</td>
</tr>
<tr>
<td>Maintenance</td>
<td>136,185</td>
<td>110,542</td>
</tr>
<tr>
<td>Travel</td>
<td>36,745</td>
<td>31,005</td>
</tr>
<tr>
<td>Other</td>
<td>73,868</td>
<td>102,244</td>
</tr>
<tr>
<td><strong>TOTAL Administration</strong></td>
<td><strong>2,013,114</strong></td>
<td><strong>2,404,890</strong></td>
</tr>
</tbody>
</table>
### ANNEXURE H (Cont'd.)

#### Note 5. GENERAL UNIVERSITY SERVICES (Cont'd.)

<table>
<thead>
<tr>
<th>Overheads</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postage</td>
<td>66,571</td>
</tr>
<tr>
<td>Telephones</td>
<td>116,922</td>
</tr>
<tr>
<td>Advertising</td>
<td>68,599</td>
</tr>
<tr>
<td>Insurance</td>
<td>46,423</td>
</tr>
<tr>
<td>Contributions</td>
<td>45,459</td>
</tr>
<tr>
<td>Furniture</td>
<td>58,043</td>
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<tr>
<td>Power, Lighting and Heating</td>
<td>249,546</td>
</tr>
<tr>
<td>Printing and Stationery</td>
<td>64,490</td>
</tr>
<tr>
<td>Other</td>
<td>44,005</td>
</tr>
<tr>
<td><strong>TOTAL Overheads</strong></td>
<td>760,058</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Building and Grounds</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>1,052,177</td>
</tr>
<tr>
<td>Salary Related Costs</td>
<td>62,557</td>
</tr>
<tr>
<td>Materials</td>
<td>279,451</td>
</tr>
<tr>
<td>Water and General Rates</td>
<td>29,712</td>
</tr>
<tr>
<td>Other</td>
<td>923</td>
</tr>
<tr>
<td><strong>TOTAL Building and Grounds</strong></td>
<td>1,426,820</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TOTAL GENERAL UNIVERSITY SERVICES</strong></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$4,197,992</td>
</tr>
</tbody>
</table>

#### Note 6. STORES STOCK

Stock holdings in the University's Central Store were valued at $72,987 at 31 December, 1982. The stock was valued using the most recent purchase price as cost for each item.

#### Note 7. LOAN FOR INTERNATIONAL HOUSE

Represents the amount still being financed by bank loan following the acquisition of International House in 1980. During the year ended 31 December, 1982 principal on the $211,203 loan from the Bank of New South Wales was increased by $263 to $211,466.

#### Note 8. DEFERRED LIABILITIES

The sum of $35,299 is outstanding as at 31 December, 1982 on a loan from the State Bank of New South Wales for the acquisition of the Vice-Chancellor's Residence.
Note 9. CONTINGENT LIABILITIES

(i) As at 31 December, 1982 outstanding Loan Guarantees provided by the University under the University of Wollongong Staff Members Housing Loans Scheme with The National Australia Bank total $16,317.

(ii) The University is engaged in a hearing before the Equal Opportunity Tribunal. The estimated costs of litigation before the tribunal are $55,000, excluding damages. Further litigation is possible if the case is appealed.

Note 10. GOVERNMENT GRANTS RECEIVED IN ADVANCE

In December, 1982 an amount of $5,570,000 was received as an advance against 1983 Australian Government Grants to the University.

Note 11. PROVISIONS

(i) The balance of Provision for Non-Contributory Pension Superannuation Scheme as at 31 December, 1982 is $479,389. Based on an actuarial assessment $87,231 was set aside in 1982 to provide members with a pension of up to 25% of salary on retirement.

(ii) The balance of Provision for Long Service Leave as at 31 December, 1982 is $922,423. The accrued liability for long service leave in respect of employees with ten (10) years or more service is $2,769,414.

(iii) The balance of Provision for State Superannuation Pension subsidy as at 31 December, 1982 is $654,577. The estimated liability for members 55 and over, for units currently held, and assuming a life expectancy of 15.27 years after retirement is in excess of $2,000,000.

Note 12. WOLLONGONG INSTITUTE OF EDUCATION

As at 21 May, 1982 the Wollongong Institute of Education federated with the University. At that date an accumulated deficit of $134,487 was taken into the University's accounts. The University, after federation, received an additional government grant of $230,000.