Welcome

The University of Newcastle welcomes you most warmly to its Open Day and hopes that you will find the various exhibitions and inspections which have been arranged most interesting and informative.

The purpose of an Open Day is to show members of the public the wide range of activities which are undertaken by the staff and students of the University and you are most welcome to follow up any interest stimulated during this visit by more frequent contacts with the University.

Far from wishing to be an "IVORY TOWER", the University is vitally concerned to gain and maintain your interest and support for all it does. Our teaching and research activities are not only for the benefit of students enrolled for degree studies (important as they are) but for the community as a whole - why not listen to 2NUR-FM regularly and join some of the many interesting courses run by our Department of Community Programmes?

As Professor Carter, the Deputy Chairman of Senate, put it so aptly during a recent graduation day address, "HEY - THIS IS OUR UNIVERSITY!" We are delighted to see you here today at your University and look forward to seeing you again.

Guide To Exhibitions, Displays And Events In Departments

ARCHITECTURE

PLACE: Architecture Building (N)

These events will be presented:

- An illustrated talk entitled Search for a Minimal Architecture. First Floor, Lecture Room 1-01, Mr. P. Drew, 2 pm.
- A display of Visual Studies work completed in the B.Sc. (Arch.) degree course. First Floor, Visual Studies Studio.
- A display of Belconnen Development, Canberra, Ground Floor, Studio 1.
- A display of models and drawings to be submitted in August as entries for the current competition for the new Parliament House buildings in Canberra. First Floor, 2nd Year Studio.
- An exhibition of model and drawings for Ocean View Recreation Park, Gorokan. Ground Floor, Studio 1.
- A display of acoustic and sun-control experiments being carried out in the Department. Ground Floor, Laboratory.

The exhibition will be open from 10 am to 5 pm. Members of staff and students will be in attendance to explain the nature of the exhibition.

BIOLOGICAL SCIENCES

PLACE: Biological Sciences Building (J)

BEWARE BIOLOGISTS AT WORK!

Both of the teaching and the ground floor Research Laboratories, including the glasshouse, will be operating and open for inspection.

You are welcome to see undergraduate classes at work and to visit a research laboratory where postgraduates will be gathering information for their thesis topics.

The Department of Biological Sciences is very heavily involved in research. There are many biological problems that result directly and indirectly from the Hunter Region containing large industrial, mining, rural and urban complexes. Consequently, some of the studies are concerned with obtaining basic infor-
CAREERS & STUDENT EMPLOYMENT

PLACE: Special desk in foyer of the Great Hall (OH)

Prospective students, parents, community leaders, friends of the University - Welcome to Open Day, 1979.

On this occasion, the University of Newcastle, through the Careers and Student Employment Office, wishes to assure all that we are interested in and DO care what happens to OUR graduates.

MONITOR CAREER GOALS: Before entering industry or an entry to the University all students are urged to consult the Careers and Student Employment Office about their career objectives. Indeed, students throughout their undergraduate years should regularly discuss career plans with us. In this way, disappointment and frustration after graduation may be avoided. If there is a lack of information in our resources, relative to specific enquiries, we offer to try and remedy such deficiency by corresponding with or making personal representations to an appropriate source.

EMPLOYMENT ASSISTANCE: It is a fact of life that when an employer is seeking further staff he wants the best available; therefore, he will test the market as widely as possible within the constraints of a wise allocation of resources to such a search. The role of the Careers and Employment Office then is not one of employment service because employers will not give us a monopoly opportunity to fill vacancies. It is one of being constantly aware of current vacancies and in occupation groups where vacancies are scarce of being aware of possible sources of enquiry. When a potential graduate comes for assistance, our aim is to help that person become aware of as many alternatives as possible. Our office currently receives regular advice or notices from 10 different sources. Quite often major local employers advise us of vacancies at the same time as arrangements are being made for press advertisements. These opportunities are immediately discussed and advertised for all students to see.

Incidentally, surveys over recent years have shown that University of Newcastle graduates have fared very well in the labour market. Our 'not in full-time employment' percentage has always been one of the lowest for all Australian universities.

INDUSTRIAL EXPERIENCE: It is well known that many University students undertake work experience during vacations relative to their academic studies.

In the fields of Engineering and Applied Science, the University has received very loyal and cooperative assistance from local industry and governmental instrumentalities in accepting our students for this purpose. The Careers and Student Employment Office provides the administrative assistance in the negotiations with employers.

CASUAL AND PART-TIME EMPLOYMENT: While they are undergraduates, many students are subject to considerable private financial lack of income. To assist the needy and all other students, the Careers and Student Employment Office invites the community at large to notify us of casual and part-time job opportunities. Relevant students are referred for hire.

About 300 students register each year for this assistance.

I LOOK AHEAD: The Careers and Student Employment Office urges all students to investigate, to plan and to work conscientiously towards specific career goals.

Final examination time is not the time to start investigating jobs.

We hope that sometime during their undergraduate years, all students will talk to us about their career plans and possibly seek our assistance to help translate them into reality.

CLASSICS

PLACE: Arts/Administration Building (A, LG)

The Classics Department is located on the lower ground floor of the Arts/Administration Building. In Activity A, LG34 and A, LG42, demonstrations of Roman and Greek spinning and weaving will be performed by Dr. Beare. Dr. Beare will also display authentic pieces of Roman and Greek clothing. Slides of Ancient Greek religious sites and temples will be shown in Room A, LG29.
COMMUNITY PROGRAMMES

PLACE: foyer of the Great Hall

The Department of Community Programmes exists to provide courses, conferences and advice on educational problems to residents and organisations in the Hunter Region.

The Department offers a very large variety of activities and each year more than 6000 people from the Newcastle area find something of interest in its total programme.

Rather than attempting a necessarily inadequate summary of its activities in this brochure, the Department invites you to speak with staff members at its display in the foyer of the Great Hall. The display will be manned all day by at least one of the Department's four academic staff and will include brochures on current and planned courses which might interest you.

If you are one of those people who would like to commence University studies, especially in the Humanities or Social Sciences, but do not have the necessary qualifications or confidence to begin, we would be especially interested in meeting you. We run a variety of preparatory courses designed to start you on the right track. Several hundred people, probably like you, have taken advantage of these courses during the past six years.

COMPUTING CENTRE

PLACE: arts/administration Building, ground floor, at the Western end.

The Computing Centre provides a SERVICE to the academic sections of the University for the processing of teaching and research computer jobs, as well as automatic data processing for the University Administration (Library, Student Records, etc.).

ADVICE on any aspect of computing is also available to any member of the staff or the student body.

All computer equipment at the Computing Centre may be viewed in operation.

A program is available to allow you to enter your name, and produce a personalised Open Day attendance certificate.

The computers will also be operating displays in other Departments, via terminals connected by telephone lines.

COUNSELLING

PLACE: lecture theatre e01, 10.30 am - room e01
(repeated at 2 pm - 3.30 pm)

The University Counselling Service has as its clientele the students and staff of the University and offers a free and entirely confidential service in making its particular contribution to the effectiveness of the University as a whole.

Members of the Counselling Service will explain and demonstrate a variety of aspects of their work. Their presentation will include a discussion of some of the obstacles to personal functioning that students encounter in the University, e.g. anxiety and depression, low self-esteem, poor communication skills. They will discuss ways of overcoming these difficulties with the help of one-to-one counselling. Group work of various kinds — assertive training, human sexuality encounter, interpersonal communication, study skills — will be outlined and examples of some activities will be shown on videotape. There will be an opportunity for all members of the audience to experience relaxation training if they so desire.

N.B.: The University Counselling Service (Room: ANG63, Lower Ground Floor, Arts/Administration Building) will be open from 10 am — 4 pm during the day, with staff available to help you around the Counselling Unit and answer any queries you may have about how the Counselling Service operates.

COMMERCIAL BANK

PLACE: Between the arts/administration and the union Buildings.

The Bank is open for these periods during term:

Savings Bank:
Monday — Thursday, 9.30 am — 4.30 pm; Friday, 9.30 am — 5 pm.

Trading Bank:
Monday — Thursday, 10 am — 3 pm; Friday, 10 am — 5 pm.

The Bank is open as follows during non-term:

Savings Bank:
Monday — Thursday, 9.30 am — 3 pm; Friday, 9.30 am — 5 pm.

Trading Bank:
Monday — Thursday, 10 am — 3 pm; Friday, 10 am — 5 pm.

COMMUNAL BANK

PLACE: Social Sciences Building (S)

A computer terminal will be used in Room 108 to demonstrate how much office routine can be processed automatically. You are invited to participate in the demonstration as the programme is flexible enough to cope with your individual order. You will have the opportunity to spend an hour and each half hour.

A T.V. monitor has also been set up in Room A, LG29. Noon in room A, LG29. Address by Professor Tanner noon in room A, LG29.

COMMUNITY BANK

PLACE: Between the arts/administration and the union Buildings.

The Bank is open for these periods during term:

Savings Bank:
Monday — Thursday, 9.30 am — 4.30 pm; Friday, 9.30 am — 5 pm.

Trading Bank:
Monday — Thursday, 10 am — 3 pm; Friday, 10 am — 5 pm.

The Bank is open as follows during non-term:

Savings Bank:
Monday — Thursday, 9.30 am — 3 pm; Friday, 9.30 am — 5 pm.

Trading Bank:
Monday — Thursday, 10 am — 3 pm; Friday, 10 am — 5 pm.

DRAMA

PLACE: Various Rooms (see below).

The Department of Drama is situated in the Mathematics Building on the First Floor, although it also utilises the Drama Theatre and the Music Room of the Great Hall as teaching space.

The Department aims to develop an understanding of theatre as a medium, an endeavour which includes both academic study and practical investigation. Thus, while being unable to offer full vocational training, we are concerned to teach some practical skills as an essential adjunct to an academic work. This means we have a full-time staff, who are employed on the grounds of their academic abilities, and supplement them by extensive use of theatre professionals and skilled teachers on a part-time basis.

One of the ways in which these people's skills are utilised is
as directors for our major shows, which become something not unlike on-the-job training. We have, over the last year and a half, used Terry Clarke, Ross McGregor, Brent McGregor, Aine Neene and Ken Boucher in this capacity with some success and intend to maintain this course of action. Terry Clarke will thus direct David Williamson's Don's Party for us in third term.

We have also employed such people as Heather Robb, Mick Rodger, Richard Wherrett, George Ogilvie and Rex Cramp horn all recognised as experts in their fields to work in less publicly visible ways, although we may be able to show you some evidence of this work today.

It is our hope that graduates who major in Drama will, firstly, have a firm sense of the nature of theatre and, secondly, will be capable of contributing competently to amateur theatre, community theatre and theatre in schools. We would also wish to have partially responsible for an efflorescence of theatrical activity within the region and can already claim links with a number of local groups.

A list of activities:

- A display of photographs, costumes, etc. in Room VII in the Mathematics Building.
- A booth distributing masks made by students for children - Drama Theatre Plaza.
- "Happenings" around the campus at totally unspecified intervals.
- Demonstration of use of video equipment in Room VIII in the Mathematics Building at regular intervals between 10.30 am and 4 pm.

Commendations of particular performances in the Music Room of the Great Hall from 2 pm to 5.30 pm.

Staff will be available for answering of any queries, etc. in Room VIII throughout the day.

A more detailed timetable of activities is available in Room VIII.

A series of video cassettes on economic topics having broad general appeal will be run, commencing every hour, on the hour.

Members of staff, on a roster basis, will be available for consultation on career prospects and any other related matters of interest to the general public.

*****

EDUCATION

PLACE: The Behavioural Sciences Building (W). Second and Third Floors.

AREAS OPEN TO THE PUBLIC:

ROOM 202 - Primary Teaching Materials display. Will include display of what students have been doing in schools during practice teaching. Also slides showing new and old primary classrooms - progressive development.

ROOM 238 - Audio-Visual display. Will include video-tapes, slides and transparencies showing the Department's involvement in special/remedial education. This display will also show the use of various audio-visual machines in the teaching of normal school curriculum subjects.

ROOM 308 - Science Laboratory. Dr. Maddock and students from the Science Curriculum and Method Course will be demonstrating some of the more unusual equipment used in Science teaching, including a three-dimensional display. There will also be video-tapes of students enrolled in this course teaching at some of the local high schools.

ROOM 301 - Curriculum Resource Centre. Display of school curriculum materials including cassettes, transparencies, films, reading kits, slides, video-tapes and books.

Members of staff will be available in all areas to answer any questions which may be asked.

*****

ECONOMICS

PLACE: Social Sciences Building (S).

Room 120, which is the Research Materials Room of the Department, will be open for inspection.

On display will be posters depicting certain aspects of the economy and outlining the research projects currently being undertaken by some of the staff, postgraduate students and the Institute of Industrial Economics.

*****

ENGINEERING COMPLEX

An information desk is situated in the Courtyard.

CHEMICAL ENGINEERING

PLACE: Building (EB).

Chemical Engineering is the branch of engineering which deals with processes in which materials undergo a change - physical or chemical. It serves most technically-advanced industries, including environmental control.

In the laboratory you can see a number of projects which illustrate some of the activities of chemical engineers, especially in relation to the Newcastle District.

A number of displays have been arranged by local industry to illustrate the role and importance of the chemical engineering industry in society. A display by the State Pollution Control Commission will illustrate the role of chemical engineering in both air and water pollution activity.

Experimental equipment in the laboratories will be in operation to illustrate some aspects of chemical engineering.

These will include:

- DISTILLATION - one of the oldest and most widely used unit operations in the chemical process industries. The distillation process is the heart of the modern oil refinery and a small pilot scale distillation column will be operating.
- FLUIDISATION - is used to assist the contact of fluids and finely divided solids, as in catalytic cracking of refinery gases, and is in new processes for burning coal.
- METALS EXTRACTION - a mixer-settler for extracting small quantities of metals from water streams provides a visually attractive display.
- PUMPING WITH AIR - bubbles rising in a tube are used to pump liquid.
- ENERGY RESEARCH - experimental research projects related to the effective use of coal in flames for electricity generation and heat will be demonstrated, including:
  - the demonstration of a swirled burner
  - the demonstration of experiments to measure the entrainment of coal particles into jets and flame
- a display will detail the use of mathematical models of furnaces in power stations.
- MICROCOMPUTER - the advent of the cheap microprocessor has made the digital computer, with its great speed and calculating power, more readily available than ever before. The microcomputer on display will control the liquid level in a tank to absolute perfection, using a program written by students.
CIVIL ENGINEERING

PLACE: Building (EP)

Undergraduate Civil Engineering and Surveying students will be engaged in laboratory and field work projects which are part of their normal course program. These activities will include the manufacture and testing of concrete, evaluation of soil design properties, evaluation of mechanical properties of metals and steel, surveying fieldwork and photogrammetric mapping.

Final Year students engaged in experimental projects will demonstrate their work. Some of the topics under investigation are: The Effect on Structural Brickwork Design of Variations in the Properties of Clay Bricks and Mortar; Bituminous Road Surfacing Mixtures Using Blast Furnace Slag; Properties of Air Dried Mud Bricks (adobe); Concentrated Loads on Concrete Slabs; Bond Strength of Galvanised Steel to Concrete; Photogrammetric Mapping of Areas Subject to Flooding.

Postgraduate Students and Staff Research Projects on display will include: Evaluation of the Properties of Blast Furnace Slag in Road Pavements; Seasonal Variation in the Skid Resistance of Road Surfaces; The Effect of Wind in the Reseation of Oxygen Deficient Water Bodies; Change in the Discharge of Flood Flows as They Pass Through a Pipe Network; Flood Routing; Compressibility Testing of Precracked Specimens.

ELECTRICAL ENGINEERING

PLACE: Building (EE)

Introduction to the Department:

1.1 Teaching - The Department of Electrical Engineering offers two undergraduate degree courses - one in Electrical Engineering and one in Computer Engineering. These courses can be completed in four years full-time study, seven years part-time study or on a sandwich basis (combined full-time study and full-time work experience). Postgraduate (Master and Doctorate) degrees are also offered.

1.2 Research - The Department's research activities cover the following areas: control theory, parameter estimation, communications, efficient energy conversion by solid state devices, microprocessor applications, fault-tolerant computing, large scale interconnected systems, radar systems and signal processing.

1.3 Consulting - The Department is also very actively engaged in consulting work relating to the design and development of electronic and microprocessor based systems for both local and Australian wide companies.

Electrical Machines - Working prototypes of some of the systems recently developed for industry will be on display including:

- Microprocessor based systems for remote measurement of objects using a T.V. camera.
- Supervisory and control systems for monitoring and controlling a distributed plant such as an electricity distribution system.
- High frequency energy conversion.

2.8 Final Year Projects - Examples of practical electronics projects undertaken by final year undergraduates will be on display.

2.3 Research Activities - There will be a display of the Department's research activities including: Electrical Machines, Communications Laboratory, Microprocessor controlled model train system. Digital System Trainers.

2.4 Undergraduate Teaching - Several undergraduate experimental rigs will be on display including:

- Electrical Machines
- Communications Laboratory
- Microprocessor controlled model train system.
- Digital System Trainers

There will also be a display showing the structure of the undergraduate courses.

2.5 Computers - Several computer systems will be on display and will be set up so that visitors can run simple programs. Examples of the programs will be computer aided design, computer psychological testing and computer games.

MECHANICAL ENGINEERING

PLACE: Buildings E & C

Laboratory equipment for research and teaching in fluid mechanics, thermodynamics, stress analysis, fracture mechanics, materials handling, mechanics and metrology will be on display.

Demonstrations of the following items will be given:

BUILDING E

1. Vibration Equipment: Room 103

Unwanted vibrations are a mechanical engineer's headache; much of his effort in designing machines is devoted to prevention. The Department has several machines which are used by students to understand why vibrations are caused and how they can be suppressed.

2. Noise Measurement: Room 103

Analyses of vehicular traffic noise to obtain noise pollution indices are demonstrated, together with a display of equipment for road-side measurement. Other items on display include a standard test on a single vehicle as recommended by Australian Standard AS 2028: accoustical requirements for different work environments, their criteria, their assessment and their abatement.

3. Analogue Computer: Room 103

Complex dynamic systems can be analysed on this equipment. A demonstration will be given of a typical industrial problem.

4. Photomechanics: Room 104

Stress patterns in sample specimens can be revealed by using polarized light and special plastics. Complex shapes can be tested revealing stress concentrations. An optimal bench for hologram production will be displayed.

5. Biomechanics: Room 105

The stress analysis of the human structure is necessary for successful replacement of joints. Typical prosthetic devices will be demonstrated.

6. Industrial Engineering: Room 106

Selected exhibits on a range of industrial problems will be shown, together with a film of industrial engineering activities.

BUILDING C

1. Steam Generator and Engine: Plant Room

A 45 kW Automatic Package Boiler will be operated supplying steam to an early model steam engine.

2. Solar Energy: Northside

A flat plate solar collector test rig will be demonstrated. A commercial Solar Cooker will be shown. The house and the swimming pool will be displayed in sketches as an efficient solar energy system.

3. Engine Test Bed and Vehicular Propulsion System: Basement

The conversion of chemical energy to useful energy requires the use of heat engines. Engine testing can demonstrate how we can operate engines efficiently and evaluate the effects of design changes.

The TUNRA-Willems Vehicular Propulsion System will be displayed, including hydro-mechanical transmission, plus specialized engine control devices.

Energy storage systems to minimize fuel consumption will be displayed.
4. Fluid Mechanics Laboratory: Ground Floor
The Department operates several wind tunnels and of particular interest at present is the education of a turbulent spot in a laminar flow. In this study a turbulent spot is produced by generating a spark between the tips of two sewing needles. The velocity signature of the spot is deduced by either analogue or digital methods.

5. MTS Testing Machine: Room 115
Metal fatigue, fracture toughness, fracture mechanics. What do they mean to you? How do they affect you? Come and find out. Continuous testing and frequent demonstrations.

6. Hydraulics Table: Room 114
Three experiments in fluid mechanics are demonstrated: flow over a V-notch weir, flow through a venturi and the reaction of a water jet impinging on a surface.

7. Materials Handling: Bulk Solids Lab. G05
Bulk materials such as coal, ores, grain and food products are tested for their strength and flow as a step towards better storage bin, conveyor and elevator design. Test facilities are demonstrated and an operating elevator and storage bin system is displayed.

ENGLISH

PLACE: Arts/Administration Building [A] First Floor
The Department of English will be mounting a number of displays in the Audio-Visual Room on the top floor of the Arts/Administration Building on Open Day.
There will be an exhibition of research materials acquired by the Library for the Department, including microfilm reproductions of authors' manuscripts and illustrated early editions. Books by the teaching staff of the Department - editions, critical works, collections of poems - will be on display.

We hope also that Mr. Eric George will exhibit his Victorian toy theatre. Members of the Department will be on hand to talk to visitors about the work of the Department in teaching and research.

GEOGRAPHY

PLACE: Social Sciences Building [R]
The 14 members of the academic staff, supported by a cartographic, technical and clerical staff of seven are actively involved in research, and community activities. The display in the foyer of Building R and in Room R07 (which adjoins the foyer) is designed to indicate the nature of this research and community activity.
Research is undertaken by the academic staff and the honours and postgraduate students in many fields of human and physical geography. Some research is directed to finding solutions to environmental and other problems in the Newcastle region; other research is directed to more wide-ranging questions elsewhere in Australia and overseas.
Members of the Department are also involved in community activities: third world relations, regional development, and secondary school curriculum.

LIBRARY

PLACE: Auchenmuty Library [L]
As the centre for study and research at the University, the Auchenmuty Library presents a general collection of interest for undergraduate and postgraduate students. The Library is fully air-conditioned and features nature brick walls, Tasmanian Blackwood timber and a brick and glass carpet. Seating is provided for 1,000 readers at any one time in the four large reading rooms, the foyer and the outdoor roof garden reading area.
The Library has a staff of 68 and is open for 72 hours per week during term, including Saturday and Sunday afternoons from 1 pm until 5 pm. In addition to the traditional book stock, the Library has received, by donation or bequest, a considerable number of special collections and rare or unusual books some of which are on display today in the Special Collections Room on level 2.
It also houses a separate archival collection, a growing collection of Audio Visual material and a small Deamon computer, which is mainly used by students.
The loan system in the Auchenmuty Library was computerised in 1971. Books lent and books returned are recorded by the computer and a printout of the books on loan is supplied each day.
The card catalogue of books and serials held by the library is situated in the foyer. Other copies of the catalogue in microfiche form are held in each reading room in a folder beside the microfiche reader. Other machines for reading microfilm, microcard and microfiche are situated in the microprint reading room and may be inspected during Open Day.

Come to the Ashmunt Library and see this big, working library on OPEN DAY.

Linguistics

PLACE: Arts/Administration
Building [A] First Floor

"Visible speech" is the theme of the work being demonstrated by the Department of Linguistics on this year's Open Day. Staff members and students will be using sophisticated electronic equipment, which enables them to stretch, filter and segment speech, and to produce voiceprints - supposedly just as individual and distinctive as fingerprints.

What the human vocal mechanism generates is, in effect, a jumble of frequencies, a "white noise". As our articulators - the organs shape different sounds, different frequencies are filtered out in the air-passage leading from the larynx or "voice box" to the lips. With the Linguistics Department's electronic equipment it is possible to record these different sounds and to obtain a visual representation of the total sound-stock of any language. It is also possible to produce a "picture" of the speech of individual speakers, to compare their speech with the norm, and to pinpoint any sources of differentiation.

Phonological work represents only one facet of the Linguistics Department's activities. It should be of special interest to anyone working with language - to migrant teachers, remedial teachers, speech therapists and teachers of the deaf. It is being demonstrated on the top floor of the Arts/Administration Building, in the Linguistics Laboratory No. 2 and in Room 144.

Mathematics

PLACE: Mathematics Building (U)
In the corridors of the Mathematics Building one can observe the number of mathematical exhibits and a collection of reproductions of the works of the Dutch artist M.C. Escher.

Throughout the day there will be the additional exhibitions and displays in the tutorial rooms of the Mathematics Building.

- The mathematics of playing games (under the direction of Professor W.D. Wallis) Room V105
- Group theory and Logic (under the direction of Professor W. Brissett) Room V104
- Statistical research (under the direction of the Faculty of Mathematics - Dr. R.W. Gibberd) Room V103
- Computer display (under the direction of Mr. B.R. Cheek) Room V201
- A trace of former graduates and a display of job opportunities (under the direction of Professor R.W. Robinson) Room V108
- A display of publications of members of staff and students of the Mathematics Department. Room V106
- A display of materials by the Newcastle Mathematical Association (under the direction of Professor J.R. Giles) Room V104

During the morning, from 11.15 am to 12.30 pm, and afternoon from 2.15 pm to 3.30 pm, there will be a selection of mathematical films of general interest shown in Room V107.

At 11 am and 2 pm the Dean of the Faculty of Mathematics, Professor R.W. Robinson, will speak for 15 minutes on job opportunities in Mathematics in Room V107.

Medicine

PLACE: Medical Sciences Building [K]

This is a new Faculty. It accepted its first 64 students in March, 1978. A further group of students started in March this year, so that a total of 100 medical students will be at the University of Newcastle by the time our first students enter their fifth and final year.

The Faculty has been fortunate to attract not only outstanding academics from Australia and overseas but also a large number of doctors and other professionals from the local community. They play an active and vital role in the activities of the Faculty - education, research and service.

The Faculty's education programme is highly innovative by world standards. There are no courses of lectures. The emphasis is on learning in small groups, so that students learn how to work together, with each other and with other members of the health team.

From the very beginning students organise their studies around real medical problems - problems of individual patients and problems of groups in the community. At the same time, they learn how to examine sick people and familiarise themselves with the many other skills needed for the practice of medicine. In this way future doctors study the wide range of medical sciences, so that they can apply their knowledge for the benefit of their patients, whether as general practitioners, specialists or research workers.

The World Health Organization has acknowledged the importance of the Newcastle development by inviting the Faculty to become a founder member of a network of sixteen innovative medical schools out of more than 1,200 across the world.

Displays, Demonstrations Etc.

LEVEL 1, Rooms 109 & 114 - Magnifying Microscopes on Display (under the direction of: Dr. D. French, Dr. J.W. Heath and Dr. G.B. Johnson)

LEVEL 2, Room 208 - Human Body Structure as Learned within an Integrated Medical Course:
- "S flown under the Microscope by television.
- Arrangements and Function of Organs and Tissues of the Body.
- First Aid and Resuscitation.
- Forensic Anatomy (under the direction of: Dr. G.A. Doran, students and Dr. D. Wardle).

Room 310 - The undergraduate education programme - Exhibits (under the direction of: Dr. A.V. Daniel, Professor C.E. Engel, Dr. G.I. Feletti, Mrs. G. Hamilton, Mr. B. Murphy, Mr. K. Quigley, Mrs. A.G. Steventon, Mr. B.W. Turnbull and Mrs. B. Wallis).

Room 303 - The Computer as a Patient - Demonstrations (under the direction of: Mr. R. Price) et:
- 11 - 12 noon 2 - 3 pm 4 - 5 pm
- Room 305 - 310 - How Fit is Your Heart? (under the direction of: Dr. A.V. Daniel, Professor C.E. Engel, Dr. G.I. Feletti, Mrs. G. Hamilton, Mr. B. Murphy, Mr. K. Quigley, Mrs. A.G. Steventon, Mr. B.W. Turnbull and Mrs. B. Wallis).

How Does Your Body Handle Medicines? (under the direction of: Dr. P. Brent and Professor A.J. Smith.)

LEVEL 4, Room 414 - How the Biochemists Test Your Body Functions (under the direction of: Professor G.W. Kellerman, Dr. P.W. Kuchel and students).

Biochemistry of the Brain - Some Experiments In Progress (under the direction of: Dr. P. Dunkley).

LEVEL 4, Room 402 - What causes the muscles around the organs inside the body to contract? (under the direction of: Dr. D. Powis.)
METALLURGY

PLACE: Metallurgy Building (M)

Within 50 kms. of the University of Newcastle is one of the most varied and significant sections of metallurgical industries in the world. Although steel products may come first to mind, there is in addition the extensive range of alloy steels and tool steels produced in the Commonwealth Steel Co., as well as wire and tube products. Further afield there is lead bullion, zinc and cadmium produced at Cockle Creek, aluminium at Kurri Kurri, with the prospect of two further smelters to come, rutile (titanium oxide) and zircon (zirconium silicate) from beach sands, as well as smaller specialist works such as foundries and a tungsten carbide works at Mayfield.

For the last 25 years, the Department of Metallurgy has been closely involved in the training of metallurgists, not only for the local industries, but producing students that have taken their place in industries and universities around the world. The Department is always sought to expose its students to the latest manufacturing ideas and analytical techniques and visitors will be able to see some of the general teaching equipment we use during Open Day.

Research students and staff are all engaged in active research programmes several of which are related to improving the properties of locally produced materials.

Finally, the expertise of the staff in the Department is made available to local industries through the University's research company, TUNRA Ltd. This has enabled numerous smaller local firms, who do not have their own testing and specialist examination facilities, to obtain access to the Department. Visitors will see some of the samples examined, and may in particular be interested in the testing of some domestic items (saucers, axes, etc.) which has been done from time to time for the magazine "Choice".

MODERN LANGUAGES

PLACE: Arts/Administration Building (A) Ground Floor

The Department has three Sections: French, German and Japanese. They are all located near the Language Laboratories in the Arts/Administration Building on the ground floor (the floor on which the numbers on the door are preceded by the letter "G").

In the French and German Sections nearly all our research efforts are directed towards the study of the literature of France and of German-speaking countries, thus increasing understanding of French and German thought and culture both in Australia and overseas.

The Japanese Section has a particular research interest in the application of recent scholarship in linguistics to the study of the Japanese language, some study in Japanese political philosophy and also the more traditional interest in Japanese culture. This type of research is not readily visible in the same way as, for example, research activities in medicine or engineering: watching a scholar reading, writing or typing an article for a learned journal would not be a particularly interesting exhibit.

However, in the other major aspect of our work, in our teaching we do have plenty to show you. Methods of teaching foreign languages have changed radically in recent years in many universities and our Department is certainly no exception. We have found that we can teach a foreign language much more efficiently by working with small groups and using tape-recordings and films as an accompaniment to the traditional book-learning and lecturing. That we can show you. We work in close collaboration with our colleagues in the Language Laboratories and some of the materials we use in the early stages of our language courses, which, owing to curriculum changes in the secondary schools, nor have to include courses which start from zero knowledge of the languages concerned.

In another room we can show some of the text books which are used in some of the 20 subjects (a subject is a unit of study lasting one year) that we teach.

In one Laboratory we will show you some of the film material we use on video-tape.

In the other Laboratory we will show you some of the films used for language teaching.

PSYCHOLOGY

PLACE: Behavioural Science Building (B)

The Psychology Department will present a series of demonstrations on the various areas of active research by staff and students. These areas cover:

- Physiological
- Perceptual
- Cognitive
- Performance
- Social
- Clinical Psychology

Various video-films and actual demonstrations will be given to show the public just what is happening in research in Psychology - and some of the implications of this research to our normal lives.

Members of the public will be able to observe each research area "in action" during the day. The present schedule will be:

10 am - noon Experimental and live demonstrations of the areas above *
12 noon - 2 pm Video sessions, discussions with staff and students on Psychology.
2 pm - 4 pm As in the morning session
* Public may have to be taken through the laboratories in small groups.

*****

RADIO STATION 2NUR-FM
PLACE: Mathematics Building (V) Top Floor
The University of Newcastle operates 2NUR-FM, the region's first and only FM radio station, which broadcasts on a frequency of 103.9 MHz. The station transmits music and spoken word programs from 10 am to 3 pm and 5.30 pm to midnight on weekdays, and from 11.30 am to 6 pm on weekends. The station has a "C" or Community, licence and many programs are presented by people from outside the University. Interested members of the public may secure the station's monthly programme guide at a low cost.

The station, situated on the top floor of the Mathematics Building, can be visited on Open Day.

*****

SOCIOLOGY
PLACE: Behavioural Sciences Building (V)
The Open Day programme within the Department of Sociology focuses on the diversity of human social behaviour and some of the sociological questions generated by this diversity. Several displays and video-tape exhibits develop this theme. Staff and students will be on hand to talk about their specific research interests as well as the study of sociology generally. A brief description of the displays follows.

- A photographic display of life as experienced among Tibetan people in Nepal, Aborigines in the Northern Territory and Isneg people in the northern Philippines, Luzon, highlights important cultural similarities and differences.
- Musical recordings and instruments from Tibet contrast vividly with our own forms of musical expression.
- Food is a central, if not sacred, interest in all cultures. There is, however, a tendency for people to overestimate basic assumptions underlying the classification of food and its consumption.
- We are, on a daily basis, bombarded by the mass media with all types of advertising. Certain aspects of this experience call for sociological analysis.
- A central research commitment of the Department of Sociology is the collection and analysis of data gathered in the Newcastle-Hunter Region. While this region is noted for its geographic diversity, its social diversity is often overlooked.

*****

SPORT
PLACE: Sportsfields 1 & 2, the Sports Pavilion (SP), Tennis Courts (TC), Auchmuty Sports Centre (ASC)
Various sporting activities will be in progress. Visitors are invited. They may compete, if they so desire, in putting, trampoline and tumbling events.

PUTTING COMPETITION, Round Robin Competition.

NO.2 SPORTS OVAL: SOCCER, 11 am to 4 pm - University v- West United.
NO.2 SPORTS OVAL: RUGBY LEAGUE, 11 am to 4.30 pm - University v- West United.
NO.2 SPORTS OVAL: TRAMPOLINING and TUMBILING (weather permitting), 10 am to 5 pm. Visitors are invited to participate.

*****

entertainment

UNION COURTYARD:
Noon - 1 pm Chief O'Neill's Favourites.
1 pm "Renaud" - Environmental Dancer.
1.40 pm Chief O'Neill's Favourites.
2.30 pm - Street Theatre Group
3 pm - Chief O'Neill's Favourites.

UNION
PLACE: Union Building (V)
This fine building is the meeting place and social centre for students of the University.
The building will be open from 10.30 am until 4.30 pm and will provide a full range of services on Open Day.
There will also be a variety of entertainment during the day.
The following services will be available:

CATERING
COMMON ROOM: 10.30 am to 4 pm - Morning and Afternoon teas, sweets, ice-cream etc.

FAST FOOD BAR: 11 am to 4 pm - fish, chips, hamburgers, chiko rolls, hot dogs, pies, chicken pieces etc.

CATERING SERVICE: Noon to 2 pm - (special dining area provided)
Set menu for $4 per head
- Roast Beef, OR Roast Chicken, Vegetables, Apple Slice with Cream, Tea OR Coffee

LIQUOR SERVICE: Stan's Bar, Noon to 4 pm - All drinks available, including a good selection of red and white wines.
The provisions of our liquor permit are such that liquor may only be served with or ancillary to a meal.

SHOPS
GIFT SHOP: 11 am to 4 pm - A wide range of gifts and souvenirs available.

STATIONERY SHOP: 11 am to 4 pm - Extensive range of stationery items, calculators and other associated lines.

MAIN PLAZA:
Approx. 1.30 - Free concert by Nothing But, consisting of students of Broadmeadow High School. This newly-formed jazz group is appearing for the university with assistance from the Contemporary Jazz Committee (Newcastle and Hunter Region).
The players are: Chris Cumming (flute), Trude Anstess (vocalist), Roslyn Ward (electric piano), Peter Boys (double bass & electric bass), Tony Boyd (drums) and James Longworth (guitar).
Treasurer's Visit

The Federal Treasurer, Mr. Howard, will come to the University on August 9 to deliver the first Bank of New South Wales Research Lecture on Finance.

Mr. Howard has responded to an invitation from the Department of Commerce and the Bank of New South Wales, which are offering the special lecture in the hope that closer relations between academics and practising financial specialists will result.

The Bank of New South Wales has agreed to sponsor the first lecture at a cost of up to $500 and to consider the possible renewal of the award in 1980.

Professor J.K. Winsen, Professor of Commerce, stated that Mr. Howard's subject would be The Australian Financial System.

The University hoped to encourage leading financial experts to visit Newcastle and Professor Winsen said he was grateful to the Bank of New South Wales for agreeing to sponsor the inaugural lecture.

He invited all members of the finance industries, including those in banking, insurance, chartered accounting and commercial law, to apply for admission tickets. The lecture will start at 5.30 pm.

Reservations are available by telephoning (049) 68 5724.

NIDA SEASON

The National Institute of Dramatic Art Company will be visiting the university again shortly for its annual play season.

This year NIDA will present John Gay's famous play, The Beggar's Opera, first performed in London in 1728.

The Beggar's Opera is considered a landmark in the development of English drama - perhaps the only memorable theatrical occasion in the 60 years between Farquhar's The Beaux Stratagem and Goldsmith's The Stoop to Conquer.

The play is expected to be a rousing success in Newcastle, where NIDA always plays to near capacity houses. The company is famous for its verve and the accomplished style of its third year, full-time-trained actors, who are on the verge of their professional careers.

Gay referred to The Beggar's Opera as a Ballad Opera and wrote libretto for popular folk songs on 18thC London. Many are still familiar today, including Over the Hills and Far Away and Greensleeves; others are melodies from Handel and Purcell operas. Gay deliberately parodies the Italian opera then in vogue.

There will be evening performances in the Drama Theatre from August 8 to 11.

Bookings can be made at the Union Shop and at the Civic Theatre. Tickets cost $5 or $3 for students.

Exhibition

Sketches executed by Lecturer in Architecture Mr. Clarke during the Birdsville Track Expedition, held by the Department of Community Programmes a year ago, will shortly be exhibited in the Staff House.

Mr. Clarke's "sketchbook" for the exhibition includes his versions of the old Birdsville Hotel, the town of Quilpie in Queensland, the abandoned Lake Harry Homestead, the hotel at Betoota in Queensland and the town of Wilcannia.

In addition to the Birdsville expedition sketches, a few works by Mr. Clarke from other "walkabout" trips and from his experiences in Newcastle will be on display.

Mr. Clarke graduated from the University of Auckland in 1958 and travelled to Europe with the University Travelling Scholarship. Three years later he returned to New Zealand with a wide range of cultural experience and a portfolio of sketches.

He won prizes for sketching, design and drawing as an undergraduate and later, in private practice, won two awards of merit and a bronze medal for architecture. He left his own practice in New Zealand in 1969 and joined a leading firm of architects in Perth, W.A.

His academic role began in 1975 when he was appointed to the staff in the Faculty of Architecture.

Mr. Clarke likes to go gliding on the Australian thermal currents and motoring on sketch tours in his four-wheel drive vehicle.

An outback "sketch-pedition" covered the western Australian Interior early in 1975. He is planning to do a series of sketches of the vanishing pubs of outback New South Wales.

Mr. Clarke's friends and colleagues from the University are to be invited to attend the opening of the exhibition of sketches on August 6 at 5.30 pm.

Greener Cities

An academic who has called for an immediate start on "the greening of cities" will give a public lecture in the City Hall on August 9.

The lecturer is Mr. Roger K.H. Johnson, Head of the School of Environmental Design at the Canberra College of Advanced Education.

Mr. Johnson, who was consulted about the planning of Canberra and Griffith University, has been interested in open space systems and pedestrian movement from the days when the first Radburn-type neighbourhood was built in Britain. In his book, The Green City, he makes an urgent case for an immediate start on "the greening of cities".

His lecture in the City Hall on August 9, to be entitled The Green City, will commence at 8 pm.

Drama Figure

Professor Martin Esslin, previously Head of BBC Radio Drama and presently Professor of Drama at Stanford University in the United States, recently visited the campus and directed a recording of Harold Pinter's Night School.

Mr. Robert Page, Lecturer in Drama, and Mr. Martin Hadlow, Assistant Manager of Radio 2NUR-FM, collaborated with Professor Esslin on the recording using seven students from the Drama Department as actors.

The radio play will be presented in stereo on 2NUR-FM in the early future.

Grant

Professor A.W. Roberts, of the Department of Mechanical Engineering has been awarded a grant of $7,300 by the Wheat Industry Research Council. His research project is entitled Optimisation of Bulk Granular Materials Handling System Design and Performance.

Printed in the Secretary's Division, the University of Newcastle for The Editor, The Secretary, The University of Newcastle, N.S.W. 3308.