

Working in partnership...





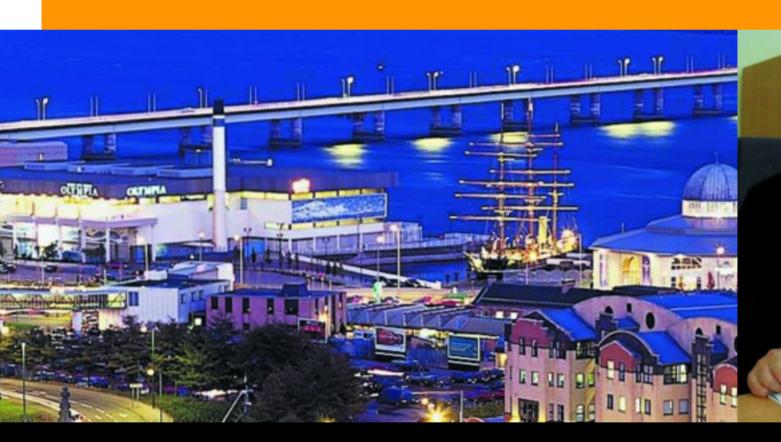
Image from "Tightle" by Lucy Heyward, first artist in residence at the Visual Research Centre, DCA

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Dundee resonates with









discovery...



...and partnership

The Year 2000 has been memorable in many ways. We can now read the entire genetic code of a human being, we are working to unleash the potential of the internet and other advanced digital technologies and new materials are being developed which will revolutionise the international microelectronics industry. Such developments are the culmination of a great international effort in basic research, public investment and academic partnership. They will help us, in partnership with industry, tackle human disease and change the way we lead our lives. But these advances also raise ethical, moral and practical issues for society which will demand more transparency and public accountability from the academic community.

The University of Dundee has played a significant part in all of this and will continue to push at the boundaries of science and technology. For example, the new "post genome research centre" will group state of the art technologies designed to exploit the full potential of the vast quantities of genome data, the Queen Mother's Centenary Research Centre which is now being planned will develop new technologies to support older and disabled people in their own homes and AMCET Ltd, a university spin out company, has the potential to revolutionise the manufacture of silicon chips.

Discovery, responsible science and enterprise will continue to thrive in Dundee.

These 21st century landmarks are important in their own right but they also highlight the resilience of the University and its ability to adapt to a world which is changing faster than at any other time in history.

Despite such pressures, the traditional values of scholarship and learning remain at the heart of the university. We continue to provide an excellent range of graduate and postgraduate courses for students in arts and social sciences, engineering and art and design. And we continue to prepare excellent students from a wide range of backgrounds for professional careers in medicine, nursing, dentistry, law and

accountancy. We also look forward to developing a new faculty of education and social work following the merger with Northern College — preparing teachers to work in our schools and establishing new education and learning technologies as an engine for change in the University. We fully support the aim of widening access to higher education and we are proud of our Summer School and ASPIRE programmes.

Professionalism in teaching, scholarship and pure and applied research will continue to thrive in Dundee.

The City of Dundee is progressive and self-confident and the theme of discovery binds its people and their two universities together in a very powerful way. With unfailing support from local councils and Scottish Enterprise Tayside, the University has a key role in the economic, social and cultural development of the city and surrounding area. But we must also continue to play our part in Scotland and internationally – working in partnership with other universities and St Andrews in particular to improve our performance through better recruitment, new degrees, greater research coverage and modern approaches to technology transfer and commercialisation.

Strong relationships with local people and effective partnership working will continue to thrive in Dundee.

As a relative newcomer to Dundee, I am conscious of the honour of being Principal and Vice Chancellor and the responsibility of leading the University at such an important point in its history. I pay tribute to my predecessor, Dr Ian Graham-Bryce CBE for his positive stewardship of the University and to every single student and member of staff for the part they play in making Dundee a thriving community of leaming. I look forward to the future with enthusiasm and confidence.

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Sir Alan Langlands Principal

Best in UK for English

According to the influential subject by subject assessment tables produced by The Guardian, Dundee came top out of 100 UK universities, including Oxford and Cambridge, for its English courses. Dundee was also placed in the UK top five in four other subjects: Art and Design (2nd), Biosciences (2nd), Anatomy and Physiology (3rd) and Pharmacology (4th).

Inspiring students...



Best Young Biochemist

Dr Dario Alessi has been named the most promising young British biochemist for his work on how insulin controls the processes in diabetes and he became the ninth recipient of this award from the Department of Biochemistry. Dr Alessi also received the Eppendorf Award for his work which has implications for understanding cell growth in cancers.



UK'S best biology student

Luke Kontogiannis, was named best biology student in the UK in the Millennium Science Engineering and Technology Awards with the final year project on hairpin ribozymes. Luke, who graduated with a first class honours degree in molecular genetics, carried out his research in Professor David Lilley's laboratory which has an international reputation for its research into the function and structure of DNA and RNA..

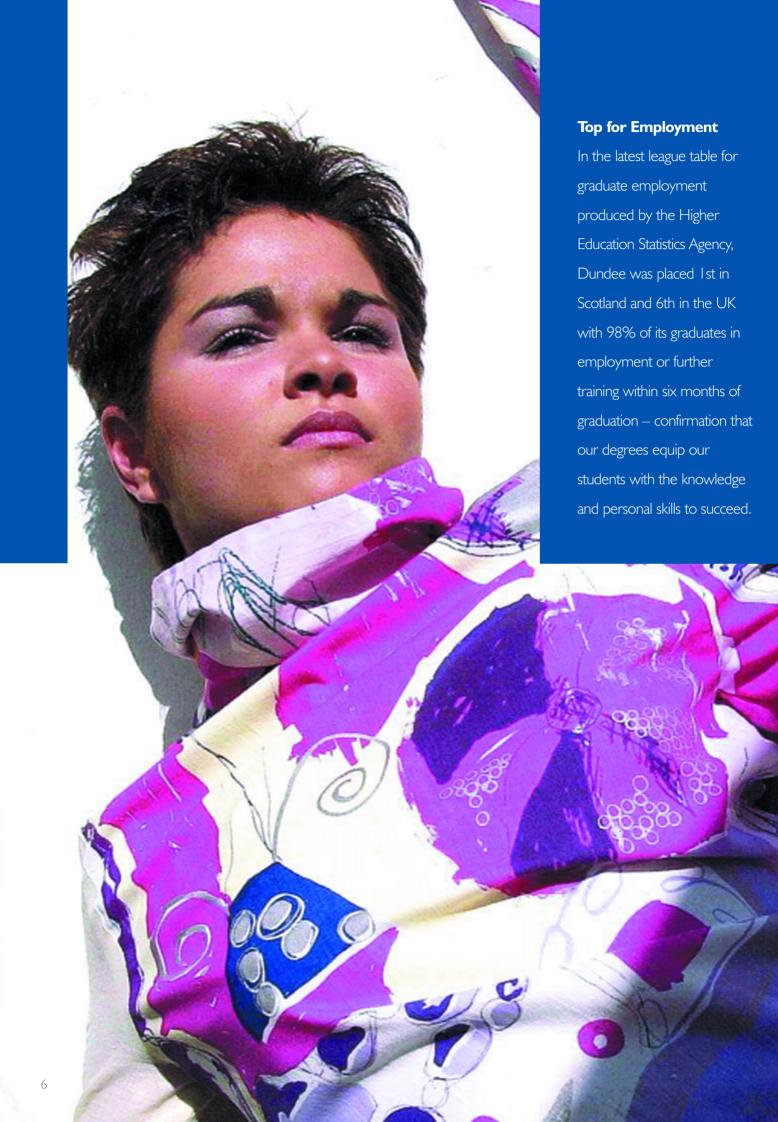


Computing star

Star computing graduate Fiona Hunter immediately made her mark on the national IT scene when her honours year project scooped two Scottish awards and was one of three finalists for the Millennium Science Engineering and Technology Awards for the best computer student in the UK. Fiona investigated how the features that make computer games so popular with young people could be applied to learning materials. She is now working as a software engineer for telecommunications company Agilent Technologies.







...discovering potential



Cultivating enterprise

New courses to inspire and cultivate enterprise are at the design stage at the Dundee branch of the new Scottish Institute for Enterprise. Ultimately these will extend to undergraduates and postgraduates throughout the University while courses in enterprise management are also under development for businesses throughout North East Scotland.



Help for fledgling business

Start up assistance, incubator units and seed funding are among the range of measures designed to help graduates establish their own businesses locally. Whether students graduate in art or information technology professional advice and practical help is designed to nurture fledgling enterprises through the tough first months.



"Smart" opportunities

Dundee's growing reputation for digital media – including TV and imaging technology, computer games and "smart" technology to assist the elderly and disabled, means a stimulating environment for young start-up companies. The Interactive Tayside initiative is ready to assist.





Unleashing enterprise...



Medipark



Extending Sell-by Dates



Entrepreneurial Spirit



Drugs Research

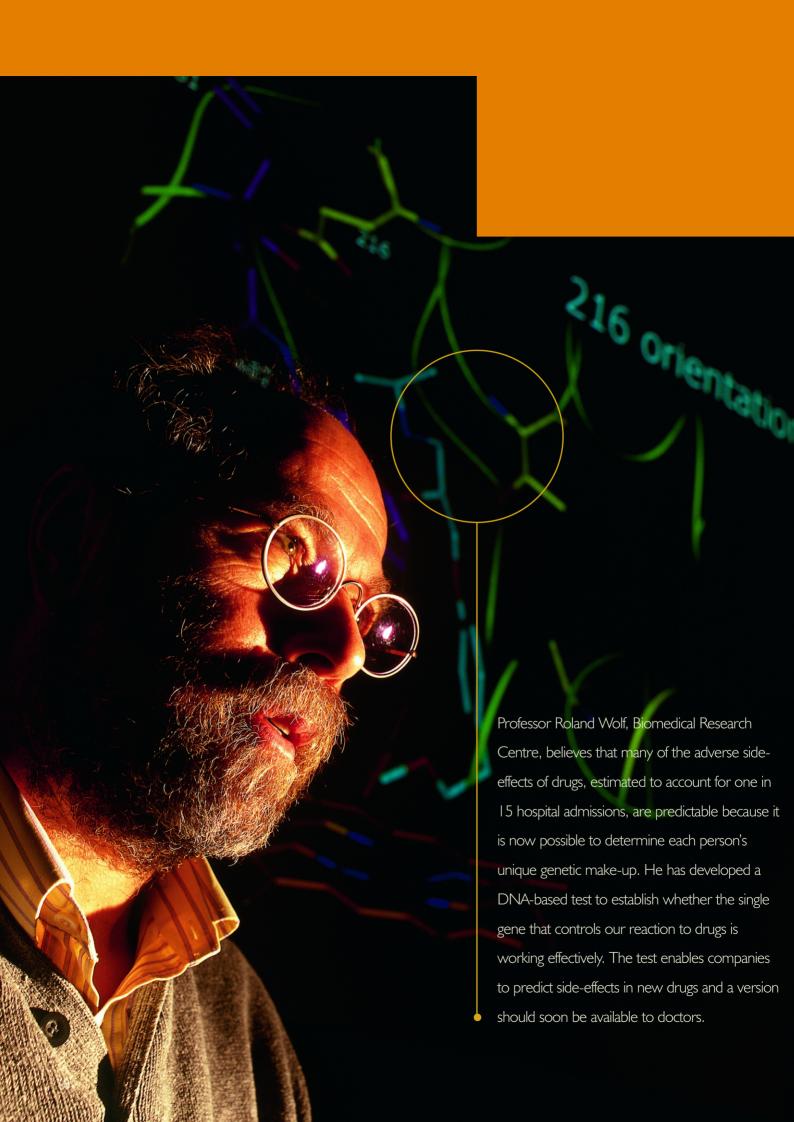
The creation of a Medipark within the grounds of Ninewells Hospital owes much to the quality of research emanating from the Medical School.

Dr Ray Quinlan,
Biochemistry, is working on
the commercial application
of his team's discovery of
tiny 'nano' machines in the
body for repairing damaged
proteins. By developing this
example of natural
biotechnology it should
be possible to keep
processed food and drink
fresher for longer.

Dundee has joined with other leading research universities (Edinburgh, Glasgow, Heriot-Watt, Strathclyde) and business partners to establish the Scottish Institute for Enterprise with £4 million funding. Dundee will be the location for an Enterprise Management Centre, led by Professor Malcolm Horner, to develop a programme of enterprise training courses for senior students and businesses.

A consortium of major pharmaceutical companies is collaborating in the University's research into signal transduction – the process by which cells respond to hormones, growth factors, infection and other stimuli. The research, directed by Professor Sir Philip Cohen and Professor Peter Downes, aims to create drugs to combat cancer, heart disease. diabetes and chronic inflammatory diseases.





...discovering new technology



Packaging Design

The Department of Mechanical Engineering is co-ordinating a £1.5 million project across Europe to develop a range of products to assist those with poor eyesight or weak hands to undertake everyday tasks in the home. The 'Helping Hand' device will be able to speak electronically in several languages, advising on the contents of a bottle before opening it.

IT for Intensive Care Patients

The world's first prototype device to allow severely incapacitated intensive care patients to communicate with family, friends and hospital staff is being developed by Professor lan Ricketts, Applied Computing, to alleviate the stress and isolation experienced by the inability to speak due to feeding tubes, breathing apparatus, etc.



Face Recognition Technology

Dr Stephen McKenna,
Applied Computing, is
working on face recognition
technology using a computer
system that can recognise a
face in a crowd and track
that person's movements.
The technology can be used
in surveillance or adapted to
create 'smart rooms' for
monitoring elderly or
disabled people and triggering
an alarm if any abnormal
behaviour is observed.

Commercialisation of Research

With its strengths in life sciences – biotechnology, civil engineering, microelectronics and materials science – the University is well-placed to improve on its already impressive record of commercialisation.

Currently the University has a live patent portfolio of 115 projects and has granted licences for the exploitation of a further 163.



Wound Healing

Husband and wife team,
Professor Seth Schor and
Dr Ana Schor based at the
Dental School were winners
in the academic and medical
category of the Unisys John
Logie Baird Awards (for the
best new ideas for
commercial exploitation) for
their work on 'active wound
dressings' capable of
reducing scarring and
speeding up healing.

Cancer Detection

Collaboration by scientists at Glasgow and St Andrews universities with Dundee University surgeons, Mr lain Tait and Professor Sir Alfred Cuschieri, has produced a fluorescence system for early detection of otherwise invisible cancerous tissue in the gullet. The revolutionary technology has already gone on trial and should soon be available commercially.

Meeting the funding challenges...

A Wider Access Study Centre has been established to co-ordinate the University's highly successful access schemes which have made higher education a reality for hundreds of adults and young people from all sectors of the community. The new Centre offers a range of year-long, part-time and shorter full-time access courses tailored to individual students' needs. The Access Summer School was praised as an example of best practice at a major UK conference on social inclusion. Dundee was one of only five Scottish universities included in the Royal Bank of Scotland's bursary scheme for disadvantaged students. Some 10% of the undergraduate intake comes via our access cours

...discovering new alliances



'Proof of Concept' Awards

The 'Proof of Concept' fund, the first of its kind in the UK, is designed to help Scottish universities to take forward ideas at predevelopment stage to test their validity and investigate their commercial potential. Three of nine successful projects were submitted by this University which took the lion's share of the biotechnology funding.



Scottish Diet

Professor Annie Anderson,
Applied Nutrition Research
Centre, is co-author of a
study into Scotland's dietary
health which concludes
that Scots' propensity for
unhealthy foods goes
almost all the way up the
social scale. Professor
Anderson was also involved
in drawing up the Scottish
Diet Action Plan whose
recommendations
have been endorsed by the
Scottish Parliament.



Heart Research Centre

The proposed £3 million Institute for Cardiovascular Research will pool the strengths of existing specialist teams to examine heart disease in terms of vascular medicine, food and diet, and population studies. Project co-ordinator, Professor Jill Belch, has recently completed a study on the effect of various oil supplements in the diet and has recommended eating fish four times per week to reduce heart disease.



Partnership with St Andrews

The Universities of Dundee and St Andrews have embarked on a pioneering partnership, backed by the Scottish Higher Education Funding Council, to build on their complementary strengths and discover new opportunities for collaboration. Among the early developments are new degrees in optoelectronics and environmental biology with input from each university. Partnerships with other universities are also being developed.







Extending friendships...



Tayside Institute of Child Health (TICH)

"Tayside Institute of Child Health is an example of what can be achieved when the NHS and University work towards a common aim." These are the words of its instigator, Professor Richard Olver.
TICH has provided a stimulus for further research into conditions which annually claim the lives of thousands of infants.



Nursing

The first nurses in the UK to complete a unique training programme in carer support emerged. The new course is designed to enable nurses to relieve the stress and burden of caring and to develop the positive aspects of this valuable role.



Campus Plan

Sir Patrick Geddes, the father of town planning, and one of the Victorian age's futuristic thinkers, continues to influence his old university who are currently forging a new campus plan along his philosophical lines, with a mind to integrating buildings and the natural environment.



Scotland's Water

When flooding occurs the media regularly turn to Professor Alan Werritty, Geography, for an explanation. An acknowledged expert on hydrology he emphasises the complex interactions that affect rainfall not just the highly-publicised 'global warming'. Changes in the level of water supply will impact on many aspects of life e.g. land-use, electricity generation, public water supply and leisure pursuits.



...discovering our rich culture

The University has helped to create the 'cultural quarter' of the city based on the Contemporary Arts Centre and Rep Theatre. This artistic role extends beyond the local community. Nigel Johnson, School of Television and Imaging, was invited by the National Museum of Photography, Film and Television in Bradford to create an entrance work for its 'Wired Worlds' gallery that has subsequently won the Design Year 2000 Award. Intriguingly the 'Digital Gateway' mimics visitors' shapes and movements as silhouettes of pixelated points of light (see front cover).



Music

The University's lively and diverse music scene is tremendously popular with the local community. Audiences across all age groups flock to the lunchtime and evening concerts, jazz, opera, orchestra and choral events, not forgetting the student union's club nights.



Exhibitions

The University's rich programme of exhibitions including the Duncan of Jordanstone Annual Degree Show adds a real buzz to the city's cultural quarter. From the most contemporary of art to fossils from the extraordinary eclectic museum collections, there is always something interesting on view. Last year the Cooper Gallery alone registered 21,000 visits - an average of 140 per day.



Dundee Book Prize

Scotland's biggest book prize - the £6,000 Dundee Book Prize launched by the University and the City of Discovery Campaign has stimulated tremendous interest locally and nationally. An impressive clutch of new novels published as a result has launched several new writing careers. For the second competition unpublished novels on the theme "discovery" are invited by 31 August 2001.

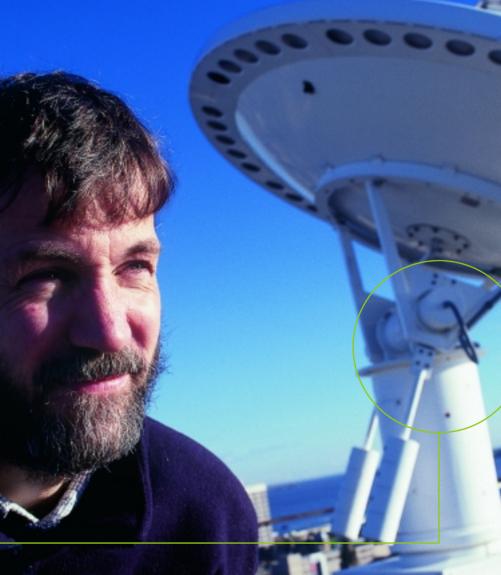


Scottish Design Awards

The School of Design picked up two awards at this year's Scottish Design Awards which attracted over 400 entries. One of the superb new facilities at the University's Visual Research Centre within **Dundee Contemporary** Arts - the Scottish Artists' Book Centre - won the product Design Award for the two members of staff involved in its design, Roland Ashcroft and Jeanette Paul.

Building links...

Today, the University's satellite station receives data from the latest NASA satellite, Terra, which is helping scientists monitor the environmental impact of man on sea, land and the atmosphere. Dr Steve Parkes, Director of the receiving station, is involved in several aspects of the European Space Agency's unmanned mission to Mercury. The simulated surface of Mercury he and his team have created will be used to test the automatic pilot computer vision system on board the space probe. His team has developed the stringent specification for computer networking – spacewire – used on board ESA and other spacecraft.







Wanli

The Wanli Project is a partnership agreement which aims to enable Chinese diploma students to complete their work for a degree at the University of Dundee by giving them direct entry into third year for both general and honours programmes. Currently seven departments are involved and by October 2002 at least 150 students are expected through this programme.



Nursing Education

The Centre for Medical Education, a pioneer in distance learning, has become the first non-American provider to gain access to the lucrative U.S. market (estimated at \$5 billion) for nursing education. Nearer home the first of a new breed of specialist practitioner nurses graduated from the School of Nursing and Midwifery.

Advising the World

The Centre for Energy,
Petroleum and Mineral Law
and Policy is offering its
training expertise around
the world:
China – the reform of the
electricity power sector
Spain and Latin America –
regulating key sectors of
the economy
South Africa – reforming the
country's mining laws
post-apartheid.

Albania

The massive haemorrhaging of Albania's population is the subject of a major study by politics lecturer Dr Gabriella Lazaridis and colleagues.

...discovering a world role

cancer and biomedical research is renowned and now yielding results. But the University's international role extends to a spectrum of other fields including design expertise; applied computing; medical education; international law and policy on water, energy and minerals; and keyhole surgery, to name but a few. A robotic bone drill and a range of surgical devices designed to reach the parts that others can't were among an arsenal of medical tools being developed in Dundee and demonstrated to the world's surgeons and engineers at a conference in Brazil. Organised by Alan Slade of the department of mechanical engineering, the Technology Meets Surgery event will be staged in Dundee in 2001.

Dundee's world role in





International Water

Today the world faces increasing problems with water distribution – water for drinking, for washing and sanitation, and for agriculture. Water shortages, often affecting the poorest countries, can lead to conflict within and between nations.

Dr Patricia Wouters, Centre for Energy, Petroleum and Mineral Law and Policy, is focusing on national and international law to help resolve potential conflict.



Avalanches and Landslides

Staff in the Geotechnical
Centrifuge Centre led by
Professor Michael Davies,
are studying the link
between global warming
and disasters on the
mountains of Europe. The
centrifuge, the first of its
kind in Scotland, will 'speed
up' gravity and observe
what happens when soil is
warmed up and permafrost,
which holds the ground
together, is destroyed.



'Green' Concrete

Professor Ravindra Dhir, Concrete Technology Unit, is working on a £0.5 million project to examine how waste ash can be safely used to produce environmentally-friendly concrete. If successful, a cheap and useful building material will have been produced and waste ash will no longer have to be consigned to landfill sites.



Gene Therapy and Keyhole surgery

The benefits of collaboration can be seen in the world's first Department of Surgery and Molecular Oncology. The new £4 million cancer treatment centre brings together world leaders in gene therapy and keyhole surgery. Using a special surgical tool, designed by the Dundee team, gene therapy will be delivered simultaneously to several parts of a cancer tumour via keyhole surgery.

The year 2000 has been another one of sound achievement for the University with exciting cutting edge research and highly promising commercial spin offs, distance learning and nursing and midwifery courses in particularly strong demand, and excellent employment prospects for graduates.

Student Statistics

| Student Numbers 2000 - 2001 | | | | FT | PT | DL | Total |
|--------------------------------|------|-----------|------|------|--------------|--------|-------|
| | | | | | | | |
| Undergraduate | | | | 7415 | 971 | 400 | 8786 |
| Postgraduate | | | | 655 | 1136 | 1374 | 3165 |
| Total | | | | 8070 | 2107 | 1774 | 11951 |
| Male | | | | 3329 | 665 | 645 | 4639 |
| Female | | | | 4741 | 1442 | 1129 | 7312 |
| By Faculty | Ur | ndergradı | uate | P | Postgraduate | | |
| ,, | FT | 0 | DL | | _ | | Tota |
| Medicine, Dentistry | | | | | | | |
| & Nursing | 2480 | 899 | 308 | 102 | 27 | 824 | 4884 |
| Science & Engineering | 1363 | 2 | 0 | 249 | 28 | 0 | 1895 |
| Law & Accountancy | 814 | 0 | 0 | 123 | 12 | 7 0 | 1064 |
| Arts & Social Sciences | 1511 | 66 | 92 | 119 | 362 | 2 550 | 2700 |
| Duncan of Jordanstone | 1247 | 4 | 0 | 62 | 9. | 5 0 | 1408 |
| Total | 7415 | 971 | 400 | 655 | 1136 | 6 1374 | 11951 |
| By Domicile | | Scotland | 1 | UK | EU | O'seas | Total |
| Undergraduate | | 6434 | 1 16 | 520 | 353 | 379 | 8786 |
| Postgraduate | | 1650 | | 774 | 194 | 547 | 3165 |
| Total | | 8084 | 23 | 894 | 547 | 926 | 11951 |

Overall student numbers are similar to the previous year's although there has been a slight fall in full-time students perhaps not surprisingly in a climate of uncertainty over payment of fees and student funding generally. Now that this has been resolved by government there are encouraging signs for student recruitment next year. Interestingly, student numbers were buoyant in areas – nursing and distance learning – unaffected by these policy changes.

| Total | 7415 | 655 | 8070 |
|--------------------------|------|-----|-------|
| Private Lodgings/Other | 348 | 39 | 387 |
| Home (own or parental) | 1609 | 61 | 1670 |
| Private Accommodation | 3844 | 359 | 4203 |
| University Accommodation | 1641 | 196 | 1810 |
| (Full-Time Students) | UG | PG | Total |
| Student Accommodation | | | |

FT = Full-time PT = Part-time DL = Distance Learning



Graduate Employment

At 31st December 1999 for first degree graduates gaining their qualification in 1998 - 1999

| Employment | % |
|---|------|
| | |
| Industry/Commerce/Public Utilities | 28.2 |
| Government/Local Government/NHS/Social Work | 17.0 |
| Universities/Colleges/Schools | 3.0 |
| Other | 5.2 |
| Study/Academic Research/Training Courses | |
| Academic Study/Higher Degrees | 13.8 |
| Vocational and other Training Courses | 13.2 |
| Other Destinations | |
| Overseas graduates returning home | 2.9 |
| Graduates not available for employment/training etc | 3.8 |
| Seeking employment/training places | 4.5 |
| Destinations unknown/not confirmed | 8.5 |
| | |

Nursing and Midwifery students gaining Diploma/Certificate qualifications are excluded from this Table though they were included in the 1998-99 University Statistical Return. Nearly all such students were recorded as employed or undertaking further study directly related to their new qualifications.

Financial Year 1999–2000

Income

| Surplus for the year | 993 | |
|-------------------------------|--------|------|
| Total | 109211 | |
| Support Services Expenditure | 5171 | 4.7 |
| Depreciation | 5000 | 4.6 |
| Catering and Residences | 4690 | 3.4 |
| Other Activities | 3004 | 2.8 |
| Premises | 7056 | 6.5 |
| Services | 6298 | 5.8 |
| Administrative and Central | | |
| Teaching Support Services | 6598 | 6.0 |
| Teaching Departments | 72394 | 66.3 |
| Total Expenditure | 110204 | |
| Endowment Income | 910 | 0.8 |
| Other Income | 17433 | 15.8 |
| Research Grants and Contracts | 30598 | 27.8 |
| Tuition Fees | 19160 | 17.4 |
| Funding Council | 42103 | 38.2 |
| Scottish Higher Education | | |

£k

%

The growth in total income for the year was 7.6%. The surplus for the year of nearly £1 million representing 0.9% of income was helped by a 12.3% increase in research grants/contracts, 39% of which came from medical charities.

Partners in real time...



Distance Learning



"Smart" research centre for elderly



The Human Genome Project

Dundee's role at the forefront of distance learning continues to develop with an ever expanding portfolio of courses as well as an expanding range of methods of delivery including teleconferencing, videoconferencing, and the Internet. Medical education, child protection, language teacher education, town planning and Scottish history are among the popular courses.

Plans for a major research centre to harness the latest information technology to tackle problems faced by elderly and disabled people were announced. The Queen Mother Centenary Centre is to be the subject of a fundraising appeal and will build on the University's international expertise in applied computing.

Charting the make-up of the body, has caught the public imagination. However, post-genomics is seen as the fundamental technology underpinning future research on all types of diseases. At Dundee a new £4 million Post-Genome Research Centre will provide the means of bringing together, in one place for the first time in Scotland, the vast quantities of data collected for the human genome project and harnessing it in the battle against human disease. The centre will use DNA technology and sequencing to compare genetic differences between diseased and healthy cells and to identify genes playing a key role in cancer, diabetes, malaria and other diseases.







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AND FURTHER EDUCA: