

OVERVIEW OF RESEARCH ACTIVITIES 2005 report on research to senate and council



| COMPARATIVE | Application year | | | | | |
|--|------------------|------------|------------|--|--|--|
| ANALYSIS | 2003 | 2004 | 2005 | | | |
| Total award to UCT | 20 321 274 | 14 635 852 | 28 826 552 | | | |
| Average award | 144 330 | 155 701 | 355 883 | | | |
| Total number of applications | 183 | 118 | 99 | | | |
| Total number of awards | 137 | 94 | 81 | | | |
| Total number of unsuccessful applications | 46 | 24 | 18 | | | |
| Percentage of unsuccessful applications | 25% | 20% | 18% | | | |

NRF Focus Area Grants: Details of new awards

Postgraduate Student Support

In 2005, 3 516 awards to a total value of R59 676 730 were offered to honours, master's and doctoral students. The main categories of award are highlighted in the table below.

| Source of funds | Number of awards | Total value of awards |
|---|---------------------|--------------------------|
| Research Councils (NRF and MRC) | 761 | R 18 973 350 |
| University central funds (GOB) | 974 | R 8 495 659 |
| Income from donated funds | 1281 | R 29 660 517 |
| Income from university investments | 374 | R 1 779 454 |
| Miscellaneous & prizes (December scholarships) | 126 | R 767 750 |
| Total | 3 516 | R 59 676 730 |

Source of funds to postgraduate students

| Faculty | No. of H, M & D students | No. of awards offered * | % | |
|---------|-----------------------------|-------------------------------|-----|--|
| СОМ | 887 | 224 | 25 | |
| EBE | 692 | 590 | 85 | |
| HSF | 1105 | 645 | 58 | |
| HUM | 1210 | 928 | 77 | |
| LAW | 293 | 39 | 13 | |
| SCI | 917 | 1 090 | 119 | |
| Total | 5 104 | 3 516 | 69 | |

Awards per faculty

In 2005, postdoctoral researchers were hosted by various departments at UCT, and 161 fellowships were offered to 130 postdoctoral researchers, to a total value of R12 759 627. Support for postdoctoral research is sourced from the NRF, the Medical Research Council (MRC), URC funds and income from donations and investments.

| Source of Funds (Fellowships) | Total | Total R |
|--|-------|------------|
| Harry Crossley Foundation | 1 | 50 000 |
| University Research Committee | 13 | 1 410 000 |
| Travel | 7 | 48 924 |
| Smuts Trust | 1 | 100 000 |
| Science Faculty | 35 | 2 725 745 |
| National Research Foundation | 32 | 2 081 071 |
| Engineering & the Built Environment Faculty | 8 | 422 000 |
| Medical Research Council | 15 | 1 435 000 |
| AW Mellon | 1 | 120 000 |
| Claude Harris Leon Foundation | 14 | 1 266 00 |
| Health Sciences Faculty | 34 | 3 100 387 |
| Total | 161 | 12 759 627 |

Source of funds for postdoctoral fellowships

| Faculty | Number of PDRFs |
|---------|-----------------|
| СОМ | 0 |
| EBE | 13 |
| HSF | 46 |
| HUM | 3 |
| LAW | 1 |
| SCI | 53 |
| Total | 116 |

Fellowships by faculty

NRF Rating

• The total number of NRF-rated researchers increased across most rating categories, and is reflected in the table below.

| Rating categories | | | | | | | | |
|-------------------|----|----|-----|---|----|---|-----|--|
| A B C P Y L TOTAL | | | | | | | | |
| 2003 | 16 | 73 | 105 | 3 | 13 | 4 | 214 | |
| 2004 | 18 | 75 | 115 | 4 | 15 | 5 | 232 | |
| 2005 | 21 | 86 | 121 | 7 | 17 | 3 | 255 | |

Summary of NRF-rated researchers at UCT

* In this process, awards are offered to students or postdocs, but it does not necessarily mean that they were accepted. If an award is offered to a student and not accepted (and eventually cancelled) and the money reallocated, it does not negate the fact that the first offer of award was made.



Postgraduate student graduations

The table below reflects the number of postgraduate degrees awarded per faculty.

| Faculty | 2003 M | 2004 M | 2005 M | 2003 PhD | 2004 PhD | 2005 PhD | 2003 Total | 2004 Total | 2005 Total |
|---------|-----------|-----------|-----------|-------------|-------------|-------------|---------------|---------------|---------------|
| CHED** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| COM | 176 | 138 | 156 | 7 | 5 | 5 | 183 | 143 | 161 |
| EBE | 99 | 90 | 93 | 9 | 14 | 12 | 108 | 104 | 105 |
| HSF | 47 | 68 | 48 | 28 | 20 | 26 | 75 | 88 | 74 |
| HUM | 140 | 131 | 126 | 19 | 22 | 44 | 159 | 153 | 170 |
| LAW | 81 | 97 | 100 | 2 | 2 | 1 | 83 | 99 | 101 |
| SCI | 83 | 116 | 125 | 37 | 32 | 36 | 120 | 148 | 161 |
| TOTAL | 626 | 640 | 648 | 102 | 95 | 124 | 728 | 735 | 772 |

Number of degrees awarded per faculty: 2003 -2005

Publication Count

- In 2005, UCT implemented the new Department of Education (DoE) policy for outputs published in 2004, where accreditation is now based on three new sets of journal lists: the IBSS (International Bibliography of the Social Sciences), the new list of South African journals and the three indices of the ISI (Institute for Scientific Information), namely the Science Citation Index, the Social Sciences Citation Index and the Arts and Humanities Citation Index. The old SAPSE list is no longer in use.
- UCT's final allocation of 756.69 units for the 2004 academic year was 34% higher than the previous allocation of 563.71 units. This increase may be partially attributed to the use of the new lists discussed above. The overall total comprises accredited journals (672.80 units), books and chapter in books (43.58 units) and peer-reviewed conference proceedings (40.31 units).

| Name of Institution | Books | Proceedings | Journals | Total | Rank |
|---------------------|-------|-------------|----------|---------|------|
| Cape Town | 43.58 | 40.31 | 672.80 | 756.69 | 4 |
| KwaZulu-Natal | 24.41 | 49.68 | 642.26 | 716.35 | 5 |
| Pretoria | 16.11 | 49.10 | 996.77 | 1061.98 | 1 |
| Stellenbosch | 28.32 | 39.41 | 782.26 | 849.99 | 2 |
| Witwatersrand | 40.31 | 24.71 | 726.60 | 791.62 | 3 |

Breakdown of total research output units for SA HEIs: 2004 data (top five institutions)

Quality assurance audit by the HEQC

Overall, the Higher Education Quality Committee report on the audit reflects favourably on the research sector. A number of recommendations and commendations ensued. An improvement plan based on the recommendations will be developed for implementation in the course of 2006.

Review of URC-accredited research groupings

Twenty-one groupings have been reviewed since the process began in 2003, with a further 12 scheduled for review in 2006. Review panels include the participation of external experts from the relevant fields.

> Department of Research and Innovation www.uct.ac.za

The aim of this report is to provide an overview of the research-related activities in 2005. The report covers achievements to date; it assesses performance in terms of UCT's aspiration to be research-led, and identifies key issues to be addressed. The following areas were highlighted in the 2005 report:



Strategic Initiatives

- A framework for signature themes was approved by the Senate Executive Committee (SEC) in December 2004. A model that builds on existing research strength, as well as a developmental model, has been adopted to optimise existing excellence and grow capacity in areas of prioritised need. In April 2005 the first call for signature themes areas of research that are considered critical for a number of reasons was announced, followed by a review process that involved external and internal reviewers. In November 2005, the Marine Research Partnership and the Brain-Behaviour Initiative were subsequently approved by the University Research Committee (URC) and the SEC as the first two UCT Signature Themes.
- A new Memorandum of Understanding was signed with the University of St Andrews, Scotland. The aim is to collaborate in selected areas that are well positioned in relation to the objectives of both the European Union and the New Partnership for Africa's Development (NEPAD).

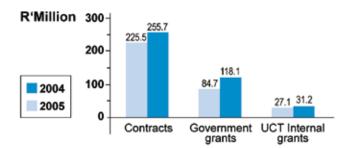
Framework for Research Development: The Emerging Researcher Programme (ERP)

| 2005 | 2005 FACULTY REPRESENTATION OF ERP PARTICIPANTS | | | | | | | |
|------|---|-----|-----|-----|-----|-----|-------|--|
| CHED | СОМ | EBE | HSF | HUM | LAW | SCI | Total | |
| 22 | 17 | 27 | 28 | 32 | 11 | 25 | 172 | |

- The number of signed-up participants in the ERP grew from 102 in 2004 to 172 in 2005.
- A postgraduate supervision training programme was piloted during the first semester, to enhance supervisory capacity and build confidence in those required to supervise.

Research Income

Total research income increased by 20% in 2005 to R405m.



UCT Research income: 2004 vs 2005

• The monetary value of the contracts approved over the past three years shows a steady growth of approximately 6% per annum. A quarter (169) of the contracts approved in 2005 were 'no-value' contracts (non-disclosure, confidentiality, material transfer and extensions), which represented a 5% increase on 2004.

| Feedback | 2003 | | 20 | 04 | 2005 | |
|----------|------|--------|-----|--------|------|--------|
| Faculty | # | R/mil | # | R/mil | # | R/mil |
| CHED | | | 5 | 0.98 | 5 | 0.75 |
| COM | 34 | 9.37 | 41 | 12.92 | 31 | 19.80 |
| EBE | 205 | 39.6 | 192 | 49.55 | 214 | 32.69 |
| HSF | 194 | 110.45 | 201 | 104.3 | 231 | 103.2 |
| HUM | 21 | 14.36 | 24 | 7.75 | 24 | 7.68 |
| LAW | 16 | 6.2 | 9 | 0.82 | 18 | 4.92 |
| SCI | 133 | 21.08 | 141 | 37.56 | 139 | 55.52 |
| Total | 603 | 201.06 | 613 | 213.88 | 662 | 224.56 |

Number and value of contracts processed (as logged on University Office)

 Funding from the National Research Foundation (NRF) is a major source of support for UCT researchers. At the end of 2005, UCT had a total of 192 NRF grantholders across a variety of funding categories, holding 297 grants with a value in excess of R51m.