

MISSION STATEMENT

The Faculty of Health Sciences is committed to developing, within a value driven ethos, quality health professionals that are practice oriented; receptive and responsive to health care needs of the people of South Africa and Africa as a whole by providing the highest standards of teaching, learning and community engagement underpinned by a commitment to empowering staff and students to succeed.

OVERVIEW AND FACULTY STRUCTURE

In August 2008, the Faculty's leadership team, consisting of academic Heads of Department, the Deputy Dean, the Faculty Office and the Executive Dean took time to review progress toward strategic objectives initially set in 2004, in response to the arrival of a 'new' Vice-Chancellor in mid 2007. The new Vice-Chancellor had clearly articulated his vision and strategic direction for the Institution and thus it was an opportune moment to reflect on the Faculty's work over a four year period, with a view to charting a new direction guided by the new Vice-Chancellor's vision and strategic goals for DUT.

Culminating from the review of the 2005-2009 Faculty Strategy was a detailed report covering an analysis of the Faculty's performance toward attainment of the strategic objectives it had set for itself in the following strategic themes:

- Teaching and Learning
- Research Participation and Output
- Community Engagement
- Equity and Transformation and
- Financial Management and 3rd Stream Income

The 2004-June 2007 report was presented to the Faculty Staff, support directorates and the DVC: Academic in November 2008. This event signalled the closure of the 2005-2009 Faculty Strategic Plan and the ushering in of a changed direction; underpinned by the VC's "DUT Strategic Direction 2008-2012: From a Technikon to a University of Technology". Hence, a new five-year strategic direction entitled: "Faculty of Health Sciences Strategic Plan 2009-2013" was developed by the Faculty Executive Committee consisting of all academic Heads of Department, the Deputy Dean and the Executive Dean.



Professor Nomthandazo Gwele
Executive Dean

Academic Departments' highlights in 2008 included:

Department of Basic Medical Sciences

- Official Opening of the New Anatomy Lecture Theatre in November 2008.
- Mortuary Practice Training

Department of Biomedical and Clinical Technology

- Professor Brinkmann, an acclaimed biochemist from Germany visited the Department of Biomedical and Clinical Technology, DUT. Professor Brinkmann's visit to South Africa was sponsored by Beckmann Coulter as part of their community outreach programme and also as an initiative to contribute towards the training of Biomedical Technology students.
- DUT students with a National Diploma Biomedical Technology, still continue to achieve the highest pass rate in the National Biomedical Technology Board Exam.

Dental Sciences

- The Mercury published an article: DUT produces first doctorate in dental technology profession in SA. André Le Roux graduated with a Doctor's degree in Technology: Dental Technology during the spring graduation ceremony at DUT. The title of his dissertation was: "Design and evaluation of alumina/feldspar resin infiltrated dental composite materials." The Mercury again included an article regarding this historic event shortly after the graduation ceremony. An article in the 2008 November edition of the SADJ entitled: Wear and Flexural Strength Comparisons of Alumina/Feldspar Resin Infiltrated Dental Composites also emerged from his study in 2008.
- Miss Anisa Vahed headed a team that designed and presented a Board game for students that help learners understand the complexities of Tooth morphology and Oral Anatomy.
- The Department canvassed with determination in 2008. Its objective was to increase the Masters enrolment for 2009 by 100%. The result was master's programme increased from two in 2008 to 8 in 2009 with one doctoral registration.
- The Dental Assisting programme celebrated their 25th anniversary during 2008. This was celebrated in style, with invitations to industry and management of the DUT.
- The department also refurbished its dental clinics and as a result the unit will facilitate a very real environment for our dental assisting students. The clinic boasts three new dental chairs and beautifully equipped surgery which is capable of doing all the basic dental treatments.

Emergency Medical Care and Rescue

Academic Achievement

- 80% of our students have secured bursaries.
- All our graduates for 2008 have secured employment and are well sought after in industry.
- The Department of Education recommended the DTech Emergency Medical Care for submission to the HEQC. Once approved, this will be a world first.

The Department of Chiropractic and Somatology

- The year 2008 was marked by many changes and challenges within the Chiropractic and Somatology Department. The changes were heralded in by the merger of the two previous Departments of Chiropractic and Somatology to form one unified Department.

Homoeopathy

- Two staff members presented their papers.
- The Department of Homoeopathy has established itself as a centre of excellence in homoeopathic research – especially with regards to provings (as a niche area).

Radiography

There were a number of staff achievements in the department which included:

- Ms Lynda Swindon attended an experiential learning conference that highlighted the importance of getting students to "experience" their learning using a variety of innovative strategies.
- Mr Sibusiso Mdletshe was promoted to senior lecturer for the Department of Radiography.
- Mr Thuto Motuang, Mr Simiso Skosana, Ms Rosh Sunder, and Ms Lynda Swindon had the opportunity to participate in a research methodology workshop.
- Mrs S Naidoo has received an incentive award for her PhD studies on the use of 18F FDG PET/CT in the detection of tuberculosis in the HIV positive and negative individual before and after TB treatment.
- The department has successfully graduated students in all four National Diploma programmes of Radiography; Diagnostic, Nuclear Medicine, Therapy and Ultrasound.

Community Health Studies

- Penny Orton: Selected by the UKZN Nursing to do her PhD on a study triangulated between Kenya, SA and Nigeria.
- Poovie Reddy: Obtained her PhD from UKZN.
- Fathima Dewan: Submitted her MEd dissertation at the end of 2008 at UKZN.
- Moeti Kgware: Awarded a scholarship by the Open Society to attend a course in Intellectual Property, Ethics and Access to Health Care at UKZN's Law School. Course successfully completed.
- Nokuthula Sibiya: Submitted her doctoral thesis.
- The Nursing Programme: Received R30 million from Atlantic Philanthropies to start a new B Nursing degree.

ENROLMENTS

Student enrolment increased by 2% from 2007 (N=1762) in 2008 (N = 1802). This is line with the Department of Education approved enrolment growth threshold for DUT. Undergraduate enrolment was at 92%, with only 8% of students registered for postgraduate qualifications.

Student participation by gender was 72% female and 28% male. The dominant female participation is also noticeable at postgraduate level with female students constituting 67% of postgraduate student enrolment in the Faculty.

Participation by race has been steadily improving over the last three years; from 46.3% participation by African students in 2006 to 54.5% in 2008. African and Coloured students continue to be underrepresented at Masters' level at 11.5% and 0% respectively. Doctor of Technology participation is generally low in the Faculty. This is not surprising when considering that only 4 out of 65 academic staff (including the Executive Dean) were available to supervise at doctoral level in the 2008. Nevertheless, at least half the students registered for Doctor of Technology degrees were African.

TEACHING AND LEARNING

Student Performance

The overall Faculty performance with regard to graduation rates has generally been above the DoE benchmark (22.5). This indicator continues to range between 32-33% from 2005 to 2007. Close scrutiny of the data, however, reveals that we had not always been doing well with regard to the National Diplomas and the BTechs. Nevertheless, improvement is apparent. Currently, the graduation rate for the national diplomas is at 25%; this in spite of increased enrolment with the introduction of Extended Curriculum programmes in a number of departments. The best performers continue to be the national certificates and the NHD.

Postgraduate graduation rates have remained below the DoE benchmark; the main concern being the Masters' degree graduation rates. The DoE benchmark for Masters' degrees is 62.5%. The Faculty at best managed to straddle between 26% and 34% during the 2006-2007 academic years. This might be attributed to the large backlog of MTech students existing in the Chiropractic and Homeopathy programmes in earlier years. The Faculty has put systems in place to monitor student progress to ensure timely completion. Currently, only a few students take more than three years to complete. The average completion time for both programmes is now three years. The research masters programmes, however, have yet to come on board. Particularly in the Clinical Technology, Nursing and Radiography programmes. This is work in progress. On the other hand, the Dental Technology and Emergency Medical Care programmes seem to manage this very well. We will learn from these successful programmes so as to be able to manage all our PG programmes with more efficiency.



Nalini Pillay – Nominated by UKZN to attend the University of Liege, Belgium to conduct experiments on molecular biology. She was also awarded the NRF: Thutuka Grant.

The Department of Chiropractic and Somatology managed to publish seven articles within peer reviewed journals both as a result of student research completed within the Department at a Masters level, but also through joint and collaborative projects with Cleveland Chiropractic College (USA) as well as Macquire University in Australia.

Goals

- Develop applied research responsive to community and industry
 - * Develop faculty support for conducting research with a particular emphasis on applied research.
 - * Identify, develop and sustain research focus areas.
 - * Develop partnerships with industry and communities to facilitate identification of research needs and dissemination of research outcomes.
 - * Develop mechanisms for the dissemination and application of research outcomes to inform teaching and learning, assessment, community engagement and further research.
 - * Create forums for oral/electronic dissemination of research outcomes.
 - * Ensuring all relevant Health Sciences are included in the DoE accredited journals.
- Develop publication writing skills
 - * Review current practices and future research in terms of previous research outcomes.

- * Improve research participation and output through increased post graduate student enrolment, publications and establishment of research groups.
- * Increase PG enrolments.
- * Increase conversion of dissertations into publications.

Accepted for Publication

Julian D. Pillay (MPH)^{1,2}, Tracy Kolbe-Alexander (PHD)¹,
Masturah Achmat (BSc Hons (biokinetics))¹, Madelaine
Carstens (BSc Hons (dietetics))¹, Estelle V Lambert (PHD)¹
Are point-of-decision prompts in a sports science and
medicine centre effective in changing the prevalence of
stair usage: a preliminary study (The manuscript has been
accepted for publication in the South African Journal of
Sports Medicine and will be published in "issue 2, 2009").

Lachman, N. et.al Perceptions of PBL Group Effectiveness in a Socially-Culturally Diverse Medical Student Population. Accepted for Publication in Education for Health in 2008.

Talmage, G., Korporaal, C., & Brantingham, J. W. An exploratory mixed methods study to determine factors which may affect satisfaction levels of patients outside of a clinical setting. Accepted for publication in *Journal Manipulative and Physiological Therapeutics*.

Atkinson, M., Matthews, R., Brantingham, J. W., Globe, G., Cassa, T., Bennefin, D. & Korporaal, C. A randomised trial to assess the efficacy of shoulder manipulation versus placebo, in the treatment of shoulder pain due to rotator cuff tendinopathy. Accepted for publication in Journal of Amer. Chiropractic Association.

Biomedical and Clinical Technology

Jamila K Adam and Wafaa N S Rmahi (2008). A Double-Blind Placebo-Controlled Investigation of the Psychomotor Profile of Clopidogrel in Healthy Volunteers. *Journal of Cardiovascular Pharmacology*: Volume 52(6) December 2008pp 507-509.

Dippenaar, D., Jones, A., Korporaal, C., et al 2008. Myofascial trigger points in the quadriceps femoris muscle of patellofemoral pain syndrome subjects assessed and correlated with a piloted patellofemoral pain severity scale, myofascial scale, NRS-101 and algometry. *J. Amer Chiropractic Association*, 45(6): 8-23.

Fish, D. Kretzmann, H., Brantingham, J, W., Globe, G., Korporaal, C, & Moen, J. (2008). A randomized clinical trial to determine the effect of combining a topical capsaicin cream and knee joint mobilization in the treatment of osteoarthritis of the knee. *J. Amer. Chiropractic Association*, 45(6): 8-23.

Brantingham, J. W., Globe, G., Pollard, H., Hicks, M., Korporaal, C., & Hoskins, W. 2008. Manipulative therapy of lower extremity conditions: Expansion of literature review. *Journal Manipulative and Physiological Therapeutics* (Available online – CCGPP website).

Kistnasamy, E. J. Robins, T. G. et.al. (2008). The relationship between asthma and ambient air pollutants among primary school students in Durban, South Africa. *Int. J. Environment and Health*, 2(3/4): 365-385.

Owen, R. & Castle, N. 2008. Prehospital Temperature Control. *Emergency Medical Journal*, 25: 375-376. Owen, R. & Castle, N. 2008. Use of the pneumatic anti-shock garment. *Emergency Medical Journal*, 25: 604-605.

Gwele, N. S. (2008). Participative leadership in managing a faculty strategy. *South African Journal of Higher Education*, 22(2): 322-332.

Botha, I., Ross, A. 2008. "A nuclear magnetic resonance spectroscopy comparison of 3C trituration derived and 4C trituration derived remedies". *Homeopathy*, 97: 196-201.

Dental Sciences

Vahed, A. **"The Tooth Morphology Board Game: An innovative strategy in tutoring Dental Technology learners in combating Rote Learning"**, 2nd European Conference on Games Based Learning (ECGBL), Hotel Silken Diagonal, University of Catalunya, Barcelona, Spain, 16th & 17th October 2008.

A number of staff from the faculty presented papers at international and national conferences. Five staff members attended international conferences while the number of staff that attended national conferences was six.

Fifty three (53) students completed their masters' studies in 2008; five of whom were awarded full research masters degrees. One student, our own staff member from Dental Sciences, Dr André le Roux was awarded a DTech: Dental Technology degree. Homeopathy and Chiropractic graduated 18 and 31 structured Masters' degree students respectively.



EXTERNAL ENGAGEMENT

A number of departments continued to involve learners and staff in a number of diverse, innovative and structured community service activities during 2008. Notable Community Engagement activities carried out by individual departments in the Faculty include:

Basic Medical Sciences

- The Department has, at the request of the KZN Dept of Health, attained institutional approval for the offering of ten short courses in providing formal training to newly employed staff at all KZN mortuary facilities. The short courses were initiated in 2008 and they will continue to be offered in 2009 and 2010. The need for this training is ongoing and new cohorts will enter this training programme each year. The offering of these short-courses results in a substantial financial benefit to the department and the institution, in addition to the strong collaborative initiative developed.
- Two new programmes have been requested by DoH a new programme, also requested by the DoH is in the process of being curriculated (Advanced Certificate: Mortuary Management) and nine old microscopes were donated to Bergview College in Matatiele.

Dental Sciences

- Maxillo-facial prosthesis
- Free and subsidized clinical services at DUT clinics and other premises

Emergency Medical Care and Rescue

- While on a search and rescue exercise in the Drakensberg, students from the Department of Emergency Medical Care and Rescue were involved in a real life drama, when a hiker slipped on ice on the frozen Tugela Falls and fell approximately 50 metres to his death. The state of the patient was not known at the time. An evacuation plan was quickly set in motion between the staff and students on the Berg and those on campus. The South African Police Services helicopter and the South African Red Cross Air Mercy Services were dispatched to the scene and the body was recovered from the cliff ledge under treacherous conditions.

Our staff and students were highly commended by the family of the deceased and all supporting services.

- The department rendered medical cover at the 4th annual Gandhi Salt March. Many participants at the march were treated for various illnesses such as chest pain, asthma, dehydration and muscle cramps. The service rendered by DUT was much appreciated.
- The department's Work Integrated Learning vehicle-Techmed 1 responded to over 400 medical and trauma cases in 2008. The benefit of this service to our community, students and to the public image of DUT cannot be over-emphasized.
- Two staff members from the department were requested to be part of the panel in charge of co-ordinating provincial emergency medical services for the 2010 Soccer World Cup.
- Our department was asked to feature a display at the SASCE conference. All attendees were very impressed by the interactive display that our students put together.

The Department of Chiropractic and Somatology

- Community engagement has always formed a core of the work experience with the students participating in the SASCE conference, the Comrades Marathon, and various athletic and sporting events as well as assisting the elderly of the community through TAFTA ventures as well as visiting Marburg Haven.
- International links were also strengthened through the attendance of the WHO Symposium on Manual therapies. The Department was represented by Dr Charmaine Korporaal, who had been invited to speak at the symposium on "Manual Medicine in Africa". Further links were cemented with Chinese delegates with the aim of encouraging Chinese students to attend DUT within the Health Faculty. With respect to the Chiropractic Programme, the WFC Education seminar that followed the WHO symposium allowed for the Department to expand the research examiner network as well as establish links with other colleges to strengthen the Chiropractic Programme at DUT.
- Industry links for the Somatology Programme were also strengthened with the involvement of the Somatology Programme in University of Technology meetings, with particular reference to Somatology curriculum discussions.

Community Health Studies

- Child and Youth Care:
 - *Child-care settings, Life Line and Ukubanesibindi Child Care Centre at the Warwick Triangle
- Environmental Health
 - *Involvement in the iTrump project, Hostel revamp and provision of EHS Services around the Durban Metro, student posters for health education distributed to various clinics and hospitals in KZN and Community service placement after graduation a national government requirement.
- Nursing
 - *Community based projects e.g. family study, community profiles, major projects for Project Planning e.g. Cleaning of Kwa-Dabeka Hostel and IDs for Children-Headed Families and Community development projects.
- Homoeopathy
 - *Department has been conducting evaluations of graduates having foreign qualifications on behalf of the AHPCSA
 - *Two DUT staff delivered three presentations at HSA Congress (June 2008)
 - *Department has been hosting monthly 'C4 trit' provings and hosted Dr Alize Timmerman in October
 - *Dr A Ross represented the Faculty at a recent HIV Workshop
 - *NGO-based HIV/AIDS clinics, including Ukubanesibindi
 - *Clinic at the Warwick Triangle
 - *Free and subsidized clinical services at DUT clinics and other premises

INCOME GENERATING ACTIVITIES

There certainly has been some improvement in the Faculty's revenue base. Evidence of improved graduation rates, cohort throughput rates and success rates presented earlier in this report could only have resulted in increased subsidy. Similarly, the improved, albeit still low research publication can only improve the Faculty's research subsidy; and even more so when coupled with the subsidy received from improved efficiencies in coursework masters time to completion. The Faculty's financial affordability data show that in 2008 the Faculty operated within its revenue base even after the Institutional allocation with a net surplus of R4 971, 497.

We have had mixed fortunes with regard to third stream income during the period under review. The Faculty Campus clinics, traditionally the Faculty's major source of third stream income have been negatively affected by the images of violence, crime and general physical condition of the surrounding environment. The result has been declining patient attendance with concomitant decline income. Several complaints from students, parents and general public have been received; which have been submitted to relevant executive managers.

Some positives were nevertheless, evident. Two departments; Emergency Medical Care and Rescue, and the Department of Basic Medical Sciences continue to work closely with KZN Health in the Province's effort to build capacity for the middle level health practitioners two Departments. This relationship has worked well as means of generating third stream income. For instance:

- The Department of Emergency Medical Care and Rescue secured a contract with the Provincial Department of Health to run three Advanced Life Support courses for their staff in the Emergency Medical Rescue Services.
- The short course run for mortuary practitioners by the Department of Basic Medical Sciences

In addition we received a five-year R30 million grant from Atlantic Philanthropies to establish a four-year undergraduate nursing degree at Indumiso Site in Pietermaritzburg. Our long established supporter, The Foschini Group continued to sponsor the Child & Youth Care community service activities at the Warwick Triangle.

Professor Nomthandazo Gwele
Executive Dean