



UNIVERSITY OF NATAL

**GRADUATION/DIPLOMA
CEREMONY**

1998

SATURDAY 9 MAY

10h00

PIETERMARITZBURG

THE ARMORIAL BEARINGS

(see front cover)

The armorial bearings of the University of Natal were awarded by the College of Arms in London.

The two black wildebeeste come from the arms of the Province of Kwazulu-Natal. They are shown in full course to symbolise movement and progress.

The two open books represent the universal heritage of knowledge and the two centres of the University, Durban and Pietermaritzburg.

The five-pointed star refers to the naming of Natal by Portuguese navigators when they landed for the first time at Durban on Christmas Day in 1497. *Stella Aurorae*, star of the dawn, symbolises the role of the University in bringing to light new knowledge and spreading the enlightening influence of education.

CONVOCATION

After being capped by the Chancellor, each graduate moves across the stage and hands to the President of Convocation or his/her representative a hood incorporating colours that indicate the degree being awarded and the Faculty in which it is being awarded. The President of Convocation places the hood upon the graduate's shoulders, and, at the end of the ceremony, after the Chancellor's procession has left the stage, leads a procession of the new graduates out of the hall, row by row, to symbolise their acceptance into, and future membership of, the Convocation of the University of Natal, the statutory body through which graduates have the opportunity to play a continuing part in the affairs of their University.

OFFICERS

| | |
|---|---|
| Chancellor | The Most Reverend D E Hurley <i>OMI, DD,</i> Archbishop Emeritus of Durban, <i>PhL (Rome), STL (Rome)</i> |
| Vice-Chancellor and Principal | B M Gourley <i>CTA (Witwatersrand), MBL (Unisa),</i> <i>LLD (h.c.) (Nottingham)</i> |
| Chairman of Council | A Rogoff <i>CA (SA)</i> |
| Senior Deputy Vice-Chancellor (Acting Vice-Chancellor) | D A Maughan Brown <i>BA (Cape Town), MA (Cantab),</i> <i>DPhil (Sussex)</i> |
| Deputy Vice-Chancellor (Academic) | A C Bawa <i>BSc (Unisa), BSc(Hons) (Natal),</i> <i>MSc (UDW), PhD (Durham)</i> |
| Deputy Vice-Chancellor (Research and Development) | E M Preston-Whyte <i>BSocSc(Hons), PhD (Natal)</i> |
| Deputy Vice-Chancellor (Students and Transformation) | E A Ngara <i>BA(Hons), MPhil, PhD (London)</i> |
| Pro Vice-Chancellor | P M Zulu <i>BA(Hons), PhD (Natal)</i> |
| Pro Vice-Chancellor | J D Volmink <i>BSc(Hons) (UWC), PhD (Cornell)</i> |
| Registrar | G J Trotter <i>BA(Hons) (Natal), MA (Duke)</i> |
| Convocation Officer | B F Xulu <i>BProc (Natal)</i> |
| Orator | C O Gardner <i>BA(Hons) (Natal), MA (Oxon)</i> |

DEANS OF FACULTIES

| | |
|--------------------|--|
| Agriculture | F H J Rijkenberg <i>MScAgric, PhD (Natal)</i> |
| Science | R J Haines <i>MSc (Natal), PhD (London), FRSSAf</i> |

PROGRAMME

The Academic Procession enters the Hall

THE CHANCELLOR CONSTITUTES THE CONGREGATION

WELCOME TO GUESTS

The Acting Vice-Chancellor

PRESENTATION OF FELLOW OF THE UNIVERSITY

The Deputy Vice-Chancellor (Academic)

PRESENTATION OF DOCTORAL GRADUANDS

The Deans of the Faculties of Agriculture and Science

INTRODUCTION OF GUEST SPEAKER

The Orator introduces the Guest Speaker

ADDRESS

Mr Derek Hanekom

Minister of Agriculture and Land Affairs

UNIVERSITY OF NATAL CHORALE

Conductor : S E Mkhulusi, BMus(Unisa), BA(Hons)(Natal)

La 'Mino (Traditional)

Inkunzi Enjani (Traditional)

PRESENTATION OF GRADUANDS AND DIPLOMATES

The Deans of the Faculties of Agriculture and Science

THE CHANCELLOR DISSOLVES THE CONGREGATION

The Choir leads the singing of the National Anthem

(Words on the back cover of the Programme)

The Academic Procession leaves the Hall

The Convocation Procession leaves the Hall

The congregation is requested to stand, and to remain standing, while the processions enter and leave the Hall and to remain seated until the conclusion of the ceremony.

Only officially authorised persons are permitted to take photographs during the ceremony.

FELLOW OF THE UNIVERSITY OF NATAL

FACULTY OF SCIENCE

(see page 19)

Gous, Robert Mervyn

Awarded for distinguished contributions in poultry science

DOCTORAL GRADUANDS

DOCTOR OF SCIENCE IN THE FACULTY OF AGRICULTURE

Lishman, Arthur William PhD Animal Science
Thesis: Improving calving rates in Afrikaner cattle

DOCTOR OF PHILOSOPHY IN THE FACULTY OF SCIENCE

Anderson, Stuart James, MSc *Discipline* Psychology
Thesis: Neuropsychological correlates of chronic fatigue syndrome
Supervisor: Dr M H Budek

Baxter, Brent John McKenzie, MSc Botany
Thesis: Aspects related to the germination of *Themeda triandra* seed
Supervisor: Prof J van Staden
Co-Supervisor: Dr J E Granger

du Plessis, Sandra, MSc(UOFS) Botany
Thesis: Physiological and molecular characterization of habituated and non-habituated soybean callus lines [*Glycine mas* (L.) *Merr cv. Acme*]
Supervisor: Dr W A Cress
Co-Supervisor: Professor J van Staden

Grab, Stefan Walter, BSc(Hons) Geography
Thesis: An evaluation of the periglacial morphology in the high Drakensberg and associated environmental implications
Supervisor: Dr F Ahmed
Co-Supervisor: Dr K J Hall

- Groenewald, Sarita, MSc(PU for CHE)** Botany
 Thesis: Promotors for sugarcane transformation: Isolation of specific sequences and evaluation of *rolC*
 Supervisor: Professor F C Botha
- Hohls, Jeanette, MSc** Physics
 Thesis: Theories and computation of second virial coefficients of electromagnetic phenomena
 Supervisor: Professor C Graham
- Mason, Paul Henry, MSc** Chemistry
 Thesis: Reactions and reactivity of Allyl and related Carbamates
 Supervisor: Professor N D Emslie
 Co-Supervisor: Prof S E Drewes
- Monadjem, Ara, MSc(Wits)** Zoology
 Thesis: An experimental investigation of the effects of supplementary food and ground cover on small mammal population dynamics and community structure in a Swaziland grassland
 Supervisor: Professor M R Perrin
- Mpono, Zwelethemba Eugene, MA(UC, Berkeley)** Mathematics
 Thesis: Fischer-Clifford theory and character tables of Group extensions
 Supervisor: Professor J Moori
- Quinn, Nevil Wyndham, BSc(Hons)** Natural Resources
 Thesis: An integrated modelling approach to the management of freshwater inflow to South African estuaries
 Supervisor: Professor C M Breen
 Co-Supervisor: Professor J W Hearne
- Summerton, Grant Charles, BSc(Hons)** Chemistry
 Thesis: Solid state structures and photophysical properties of polypyridyl complexes of Platinum(II)
 Supervisor: Professor R J Haines
 Co-Supervisor: Professor J S Field
- Tomlinson, Natasha Elena, BSc(Hons)(Melbourne)** Geology
 Thesis: Aspects of the petrology and geochemistry of the lower to upper critical zone in the Steelpoort area, Eastern Bushveld complex
 Supervisor: Prof A H Wilson
 Co-Supervisor: Prof J R Krynauw

- Tosomba, Omalokoho, MSc, (Free Univ.Brussels)** Biochemistry
 Thesis: Studies on acid phosphatases of *Trypanosoma congolense*
 Supervisor: Dr T H T Coetzer
 Co-Supervisor: Professor J D Lonsdale-Eccles
- Troeberg, Linda, BSc(Hons)** Biochemistry
 Thesis: Trypanopain: a potential target for anti-trypanosomal agents
 Supervisor: Dr T H T Coetzer
 Co-Supervisor: Professor J D Lonsdale-Eccles
- Venter, Andrew Karl, MSc(Wits)** Natural Resources
 Thesis: Protected area outreach programmes: a case study and critical
 evaluation
 Supervisor: Professor C M Breen

DOCTOR OF PHILOSOPHY IN THE FACULTY OF AGRICULTURE

- | | <i>Discipline</i> |
|---|---|
| Bates, Richard Frank, MScAgric | Agricultural Economics |
| Thesis: | An evaluation of the South African sugar industry's small cane growers' Financial Aid Fund |
| Supervisor: | Professor W L Niewoudt |
| Moore-Gordon, Clive Scott, BScAgric | Horticultural Science |
| Thesis: | Aspects of avocado fruit growth and development: towards understanding the 'Hass' small fruit syndrome |
| Supervisors: | Professor A K Cowan Professor B N Wolstenholme |
| Nowell, David Carlisle, BScAgric | Plant Pathology |
| Thesis: | Studies on ear rot and grey leaf spot of maize in South Africa |
| Supervisor: | Professor F H J Rijkenberg |
| Co-Supervisor: | Dr M D Laing |
| Van Vuuren, Stephanus Petrus, MScAgric | Plant Pathology |
| Thesis: | Application of transmissible agents to control citrus tree size |
| Supervisor: | Professor J V da Graca |

GRADUANDS

MASTER OF SCIENCE

Discipline

- Addai-Poku, Kwasi**, BSc(Hons)(S&T Kumasi, Ghana) Environment & Development
Dissertation: Green consumerism: a way forward in South Africa? A case study in Pietermaritzburg
Supervisor: Dr D Reavey
Co-Supervisor: Dr T Nichola
- Addo, Patrick Kwezi**, BSc(Hons)(S&T Kumasi, Ghana) . . . Environment & Development
Dissertation: A review of the application of integrated environmental management by National Government Departments in South Africa
Supervisor: Mrs J Mander
Co-Supervisor: Mr N W Quinn
- Airey, Luclaire Anne**, BSc(Hons) Environment & Development
Dissertation: A critical evaluation of tourism in Ximba, KwaZulu-Natal
Supervisor: Professor R Lawrence
Co-Supervisor: Mrs L Grant
- Currie, Sarah Louise**, BSc(Hons) Geography
Dissertation: Towards an integrated environmental management strategy for the Mdloti River catchment
Supervisor: Dr H R Beckedahl
- Dalasile, Thembile Lawrence**, BSc (Agriculture) Biochemistry
Dissertation: Cloning of the Promotor Regions of *Trypanosoma brucei* and *Trypanosoma congolense* systeine protease genes
Supervisor: Professor C Dennison
Co-Supervisor: Dr R Maharaj
- D'Inzillio Carranza, Ilaria**, (Cert.U. Univ.Degli Studi Di Roma) Zoology
Dissertation: Use of space and activity rhythms of spotted-necked otters in the Natal Drakensberg
Supervisor : Professor M R Perrin
Co-Supervisor: Dr D Rowe-Rowe
- Els, Leonard Edward**, BSc(Hons) Computer Science
Dissertation: A neural network approach to isolated word speech recognition
Supervisor: Mr R Dempster
Co-Supervisor: Professor L M Haines

- Esprey, Luke John, BSc(Hons)** Hydrology
 Dissertation: Hillslope experiments in the North East Cape to measure and model subsurface flow processes
 Supervisor: Dr S A Lorentz
 Co-Supervisor: Professor R E Schulze
- Fynn, Richard Warwick Sinclair, BSc(Hons)** Range & Forage Resources
 Dissertation: Effect of stocking rate and rainfall on rangeland dynamics and cattle performance in a semi-arid savanna, KwaZulu-Natal
 Supervisor: Professor T G O'Connor
- Goddard, Keith Warren, BSc(Hons)** Zoology
 Dissertation: Fluctuating asymmetry in the redcollared widow: testing theories of sexual selection
 Supervisor: Dr M J Lawes
- Goodall, Julia Louise, BSc(Hons)** Plant Pathology
 Dissertation: Factors affecting germination and growth of sugarcane transplants
 Supervisor: Prof F H J Rijkenberg
 Co-Supervisors: Dr M D Laing
 Dr R Bailey
- * **Grussendorff, Sharon Joy, BSc(Hons)** Physics
 Dissertation: A theoretical investigation of birefringences in cubic and uniaxial magnetic crystals
 Supervisor: Professor R E Raab
- * **Hughes, Gregory Owen, BSc(Hons)** Hydrology
 Dissertation: An analysis of baseflow recession in the Republic of South Africa
 Supervisor : Prof R E Schulze
- Kitto, Stephen Michael, BSc(Hons)** Entomology
 Dissertation: Studies of the Nests of the Fungus-Growing Termites *Macrotermes Natalensis*(Isoptera : Macrotermitinae)
 Supervisor: Dr R M Miller
 Co-Supervisor: Dr P R Atkinson
- Lee, Alan, BSc(Hons)** Botany
 Dissertation: The effect of vesicular-arbuscular mycorrhizae on the growth of two indigenous grass species *Themeda triandra* and *Trachypogon spicatus* grown on coalmine spoil topsoil
 Supervisor : Dr W A Cress
 Co-Supervisor: Professor R I Yeaton

- * **Liu, Tao**, BSc(Hons)(Guangxi Normal University, China) Plant Molecular Biology
 Dissertation: Characterization of the gene complex regulating the response of soybean roots to heat, cold and water stress
 Supervisor: Prof J van Staden
- Lowe, Kerry Lynne**, BSc(Hons) Environment & Development
 Dissertation: Agrohydrological sensitivity analyses with regard to projected climate change in Southern Africa
 Supervisor: Professor R E Schulze
 Co-Supervisor: Mr G Kiker
- Mabuza, Boy Raymond**, BSc(Hons)Unisa Physics
 Dissertation: The effect of antisymmetrization in diquark models of baryons
 Supervisor: Professor C Graham
 Co-Supervisor: Dr R M Adam
- Mautsoe, Puseletso Jacinta**, BSc(Hons) Botany
 Dissertation: Uptake of cadmium and its effect on the physiology of the liverwort *Dumortiera hirsuta* (SW) Nees and the moss *Atrichum androgynum* (CM) Jaeg
 Supervisor: Dr R P Beckett
- McGugan, Brandon Ross**, BSc(Agric) Microbiology
 Dissertation: Exploitation of indigenous fungi in low-cost *ex situ* bioremediation of oil-contaminated soil
 Supervisor: Professor E Senior
 Co-Supervisor: Professor F H J Rijkenberg
- Molatudi, Mohohlo William**, BSc(Hons) Botany
 Dissertation: A molecular study of γ -aminobutyric acid synthesis in *Arabidopsis thaliana* under abiotic stress
 Supervisor: Professor J van Staden
 Co-Supervisor: Professor W A Cress
- Moodley, Magandaran**, BSc(Hons) Geography
 Dissertation: Off road vehicle perturbation effects on the geomorphic environment of Golden Gate Highlands National Park, South Africa
 Supervisor: Dr H R Beckedahl
- Moodley, Shomenthree**, BSc, Dip HRM Environment & Development
 Dissertation: Ecological and economic aspects of treating vegetable oil industrial effluent at Darvill Wastewater Works in Pietermaritzburg
 Supervisor : Mr M A G Darroch
 Co-Supervisors: Dr Q Espey
 Professor M Lyne

- Mota, Rabia Ismail, BSc(Hons)** Psychology
 Dissertation: The influence of culture on the construal of the self amongst
 White, Black and Indian students
 Supervisor: Mr N J Mkhize
- Obiri, John Festus, BSc(Hons)** Environment & Development
 Dissertation: Socio-economic and environment impacts on the utilisation of
 Umsimbithi tree (*Milletia grandis*) in Eastern Cape: a case study
 of Mt. Thesiger Forest Pondoland
 Supervisor: Dr M J Lawes
 Co-Supervisors: Dr S Cawe
 Dr E Granger
- Othusitse, Botshabelo, BSc(Agric)(UNIBO)** Environment & Development
 Dissertation: An evaluation of small scale forestry in the Kwambonambi
 region of KwaZulu-Natal
 Supervisor: Mrs J Mander
 Co-Supervisors: Mr M Mander
 Mr N Quinn
- Paulton, Anne-Mary, BSc(Hons)** Chemistry
 Dissertation: Progress towards the stereoselective synthesis of Warburganal
 Supervisor: Professor N D Emslie
 Co-Supervisor: Dr D Gravestock
- Peirson, Ian Gary, BSc(Hons)** Chemistry
 Dissertation: Chiral induction in the Baylis-Hillman Reaction
 Supervisor: Professor N D Emslie
 Co-Supervisor: Dr B Rahm
- Pieterse, André, BSc(Hons)(Stell)** Counselling Psychology
 Dissertation: An exploratory study of violence and the development of self-
 concept in black children
 Supervisor: Professor L Lachenicht
- Plaistowe, Matthew Allan, BSc(Hons)(Wye Coll. London)** Environment & Development
 Dissertation: Waterborne sanitation, cost recovery and quality of life: a case
 study of Ekuvukeni
 Supervisor: Dr T S Marcus
- Raja, Sashnee Ballakista, BSc(Hons)** Microbiology
 Dissertation: Biological treatment of phenolic wastewater
 Supervisor: Professor F M Wallis
 Co-supervisor: Professor E Senior
 Dr C du Plessis

Rangongo, Mamoloko Florah, BSc(Hons)(MEDUNSA) Clinical Psychology
 Dissertation: Effects of Iron Deficiency on the Cognitive Functioning of
 Primary School Children in Southern KwaZulu-Natal
 Supervisor: Mr N J Mkize

* **Rivers-Moore, Nicholas Andrew, BSc(Hons) Environment & Development**
 Dissertation: The use of a geographic information system to examine changes
 in land use patterns in the Midmar catchment
 Supervisor: Dr J E Granger
 Co-Supervisor: Dr F Ahmed

Rowlinson, Lisa Clare, BSc(Hons) Environment & Development
 Dissertation: Remote sensing techniques for identifying and classifying alien
 invasive vegetation in Riparian Zones
 Supervisor: Dr F Ahmed
 Co-Supervisor: Mr M Summerton

Sinclair, Richard Roy, BSc(Hons) Geography
 Dissertation: An analysis of terracettes in Giant's Castle Game Reserve,
 KwaZulu-Natal Drakensberg, South Africa
 Supervisor: Dr F Ahmed

Taylor, Michelle Anne, BSc(Hons) Microbiology
 Dissertation: Installation, commissioning and preliminary microbiological and
 operational investigations of full-scale septic tank digestion of
 sewage
 Supervisor: Professor E Senior

Taylor, Valerie, BSc(Hons)(Open University, London) . . . Environment and Development
 Dissertation: The application of simulation modelling in hydrological conflict
 resolution: Pongola catchment case study
 Supervisor: Prof R E Schulze
 Co-Supervisor: Dr M Dent

Walton, Alison Norma, BSc (Hons) Statistics
 Dissertation: Forecasting the monthly electricity consumption of
 municipalities in Kwa-Zulu Natal
 Supervisor : Professor L M Haines

* **Woods, David Buchanan, BSc(Hons) Environment & Development**
 Dissertation: Siting artificial water points in Mkuzi Game Reserve using GIS
 Supervisor: Dr F Ahmed
 Co-Supervisor: Dr P Goodman

Wortmann, Karl Lyndon, BSc (Hons) Computer Science
 Dissertation: On Case Representation and Indexing in a Case-Based Reasoning System for Waste Management
 Supervisor : Dr D I Petkov
 Co-Supervisor: Prof E Senior

MASTER OF AGRICULTURAL MANAGEMENT

Discipline

Khuele, Percival Ramapulana Selai, BScAgric Agricultural Economics
 Dissertation: Demand and supply factors in the export of South African fresh oranges to the European Union (EU) : 1976 - 1993
 Supervisor: Mr M A G Darroch

MASTER OF SCIENCE IN AGRICULTURE

Discipline

Ahmadi, Ramtin, BScAgric Agronomy
 Dissertation: Nutrient studies in potatoes (*Solanum tuberosum*)
 Supervisors: Professor A L P Cairns
 Professor P L Greenfield

Bard, Zac Jon, BScAgric Horticultural Science
 Dissertation: Soil boron application for the control of boron deficiency of avocado (*Persea americana* Mill.) in the KwaZulu-Natal Midlands
 Supervisor: Professor B N Wolstenholme

James, Barry Mark, BSc(Hons)(PU for CHE) Range & Forage Resources
 Dissertation: Vegetation succession and soil properties following removal of pine plantations on the eastern shores of Lake St Lucia, South Africa
 Supervisors: Professor T G O'Connor
 Professor J C Hughes

Liebenberg, Benjamin Christiaan, BScAgric(Stell) Crop Science
 Dissertation: Intercropping of maize and dry beans in the Vulindlela district of KwaZulu-Natal
 Supervisor: Professor A L P Cairns

Lukangu, Gastao, BSc(Agric)(Agostino Neto University, Angola) Agronomy
 Dissertation: Bowen Ratio and surface temperature techniques for measuring evaporation of cabbages
 Supervisors: Professor M J Savage
 Dr M A Johnston

- Pan, Manjing**, BAgric(Beijing Agricultural University, China) Genetics
 Dissertation: The inhibition of *Fusarium oxysporum* f. sp. *cubense* race 4 by
Burkholderia cepacia
 Supervisors: Professor J W Hastings
 Dr P Shanahan
- Weller, Philip Lawrence**, BScAgric Horticultural Science
 Dissertation: Vapour heat treatment of 'Hass' and 'Fuerte' avocado (*Persea
 americana* Mill.) fruit for extending storage life
 Supervisor: Professor B N Wolstenholme
 Co-Supervisor: Professor A K Cowan

BACHELOR OF SCIENCE (HONOURS)

| | <i>Discipline</i> |
|--|---------------------|
| Aberg, Christian , BSc | Geography |
| Arthur, Georgina Dede , BSc | Plant Pathology |
| Barker, Tanya Lynn , BSc | Geography |
| * Berjak, Stephen Gary , BSc | Applied Mathematics |
| Brown, Mark , BSc | Zoology |
| * Carbutt, Clinton , BSc | Botany |
| Chulow, Alistair David , BSc | Hydrology |
| * Dalling, Kerry Jacqueline , BSc | Botany |
| * Dawe, Adam Sean , BSc | Biochemistry |
| * Edwards, Thomas Jonathan , BSc | Biochemistry |
| * Field, Louise Fabienne , BSc | Botany |
| Frean, Nicola Helen , BSc | Hydrology |
| Gers, Craig Jonathan , BSc | Geography |
| Graham, Martha Helena , BSc | Soil Science |
| Greenway, Teresa Gay , BSc | Botany |
| Hallowes, Jason Scott , BSc | Hydrology |
| * Hart, Reinet , BSc | Psychology |
| Hawke, Georgina Frances , BSc | Plant Pathology |
| Hawthorn, Scott Raymond , BSc | Chemistry |
| Hood, Robyn Margaret , BSc | Geography |
| * Hull, Douglas Robin Sant , BSc | Microbiology |
| Hundermark, Gregory Edward , BSc | Computer Science |
| * Jooste, Marion Cheryl , BSc | Chemistry |
| Kelly, Janine Anne , BSc | Entomology |
| Kelmanson, Jonathan Edward , BSc | Botany |
| Khumalo, Promise Nomfundo , BSc | Computer Science |
| Knowles, Taflin Ann , BSc | Botany |
| * Lawrence, James Mark , BSc | Entomology |
| Lemos, Sharon Angela Castro , BSc | Zoology |
| Mackay, Malanie Roseland , BSc | Biochemistry |
| Maclean, David , BSc | Computer Science |

| | | |
|---|--|---------------------|
| | Madlala, Paulos Sizwe, BSc | Chemistry |
| | Mafoko, Baatseba Johanna, BSc | Biochemistry |
| | Mathe, Emelinah Hluphekile, BSc | Biochemistry |
| | McHunu, Eric Vusi, BSc | Chemistry |
| * | McMaster, Megan Kay, BSc | Zoology |
| | Meyer, Brian Robert, BSc | Chemistry |
| | Mhlongo, Nozipho Felicity, BSc(UNIZUL) | Microbiology |
| | Mokebe, Pule Tumisang, BSc | Microbiology |
| | Mokone, Cornelius Zachius, BSc | Statistics |
| * | Moodley, Thunicia, BSc | Biochemistry |
| | Moolman, Lizette, BSc | Biochemistry |
| | Mthembu, Nompumelelo, BSc | Microbiology |
| * | Muir, Peter William, BSc | Applied Mathematics |
| | Nebbe, Cheryl, BSc | Plant Pathology |
| | Netshifhefhe, Thilavhelesi Simon, BSc | Statistics |
| * | Nhlebel, Richard Vusumuzi, BSc | Physics |
| | Pillay, Candice Claudia Natasha, BSc | Molecular Biology |
| * | Pistor, Carmen Paula, BSc | Genetics |
| | Pott, Andrew James, BCom | Hydrology |
| | Ralebitso, Theresia Komang, BSc | Microbiology |
| | Ramnath, Manilduth, BSc | Genetics |
| | Roberts, Anita Lee, BSc | Applied Mathematics |
| | Salman, Bilkisu, BSc | Chemistry |
| | Schoeman, Ronelle Ruth, BSc | Chemistry |
| | Sewlal, Shardesh, BSc | Soil Science |
| | Shale, Thato Lucy, BSc(NUL) | Botany |
| | Sihlophe, Nhlanhla Reginald, BSc | Hydrology |
| | Singh, Ashmi, BSc | Chemistry |
| | Surendorff, Jürgen Gregor Manfred, BSc | Hydrology |
| | Symes, Craig Thomas, BSc | Zoology |
| * | Tarr, Heather Lucy, BSc | Applied Mathematics |
| | Taylor, Kim Jennifer Elizabeth, BSc | Genetics |
| | Thompson, David Ian, BSc | Botany |
| | Thomson, Leanne, BSc | Microbiology |
| | Tredgold, Ashleigh-Jane, BSc | Botany |
| | Uys, Roger Gregory, BSc | Botany |
| * | Viljoen, Marcel René, BSc | Computer Science |
| | Weeden, Lisa Anne, BSc | Microbiology |
| | Whittaker, Ryan William, BSc | Molecular Biology |
| | Wilson, Ian Grahame, BSc | Geography |
| | Yobo, Kwasi Sackey, BSc | Microbiology |

BACHELOR OF AGRICULTURAL MANAGEMENT (HONOURS)

| | |
|--------------------------------------|-------------------------|
| Bown, Anthony Norman, BAgriMgt | Agricultural Management |
| Turner, Christopher Robert, BAgriMgt | Agricultural Management |

* Degree awarded **cum laude**

BACHELOR OF SCIENCE IN DIETETICS (HONOURS)

Mthuli, Teressa Duduzile, BDiet(MEDUNSA) Dietetics

BACHELOR OF SCIENCE IN AGRICULTURE

| | | |
|---|-----------------------------------|-------------------------|
| | Anderson, Rhoda | Animal Science |
| | Apostolides, Karina | Horticultural Science |
| | Auerswald, Larne Kenneth | Plant Pathology |
| | Bidla, Sindile Xolani Jama | Animal Science |
| | Bowley, Michael Craig | Agricultural Production |
| | Boyum, Hans Mark | Horticultural Science |
| | Brook, Henry Frederick | Agricultural Economics |
| | Catella, Antony James | Grassland Science |
| | Cochrane, William James Dundonald | Agricultural Production |
| | Criveano, Tom | Horticultural Science |
| | De Boer, Brendon | Agricultural Production |
| | Demont, Wendy Eileen | Horticultural Science |
| | Draper, Claire Elizabeth | Entomology |
| | Dudman, Dirk | Agricultural Economics |
| | Evans, Jennifer Janet Cecile | Animal Science |
| | Ferreira, Craig Piers | Agricultural Economics |
| | Galloway, Derick Russell | Agricultural Economics |
| | Geils, Stephen Spencer Alston | Soil Science |
| | Gibbs, Jennifer Lynn | Animal Science |
| | Gibson, Timothy Errol Matthew | Agricultural Economics |
| α | Glaum, Melanie Jane | Grassland Science |
| | Green, Frederick Michael | Horticultural Science |
| | Guizot, Stefan Jeremy | Animal Science |
| α | Hall, Edward Glenton | Genetics |
| | Hallwirth, Claus Volker | Genetics |
| | Harris, John Rowland Leslie | Grassland Science |
| | Hildebrand, Sean Mark | Horticultural Science |
| | Hinde, Christine Frances Cecile | Animal Science |
| | Hoosen, Mustaq Farouk | Horticultural Science |
| | Laing, Shaun Robert | Agricultural Production |
| | Lowry, Dale Hardeane | Horticultural Science |
| | Mac Gregor, Shaun Donovan | Grassland Science |
| α | Macfarlane, Peter Granby | Wildlife Science |
| | Maharaj, Jyothi | Animal Science |
| | Mann, Roger Leigh | Agricultural Economics |
| | Mariette, Benoit Alain Bernard | Agricultural Production |
| | McCulloch, Douglas John | Grassland Science |
| * | McKechnie, Andrew Richard | Agricultural Production |
| | McKenzie, David John | Agricultural Production |

* Degree awarded **cum laude**

α Degree awarded **summa cum laude**

| | |
|----------------------------------|-------------------------|
| Mendes, Carlos Juan D'Oliveira | Agricultural Economics |
| Millican, Kim Halley | Agricultural Production |
| Munian, Adhestra Jagathesan | Horticultural Science |
| Pringle, Erik Wadner | Horticultural Science |
| Rabinowitz, Simon Kedar | Animal Science |
| Reynolds, Richard Norman | Grassland Science |
| Simkins, Gregory Denis | Agricultural Production |
| Smith, Andrew Desmond | Animal Science |
| Snyman, Jacobus Johannes Charles | Horticultural Science |
| Stephens, Iain Andrew | Horticultural Science |
| Stewart, Greg | Agricultural Production |
| Taylor, Nicolette Jane | Horticultural Science |
| Tembe, Gladys Mamati | Crop Science |
| Thompson, Simon | Agricultural Economics |
| Van Schoor, Stephen Mostert | Agricultural Production |
| Williams, Melanie Theresa | Horticultural Science |
| Wilson, Robert Alfred | Agricultural Economics |
| Wiseman, Jonathan Angus | Agricultural Economics |

BACHELOR OF SCIENCE IN AGRICULTURE (FIVE-YEAR)

| | |
|------------------------|-----------------------|
| Thamaga, Joyce Magoshi | Horticultural Science |
|------------------------|-----------------------|

BACHELOR OF AGRICULTURAL MANAGEMENT

| | |
|--|-----------------------------|
| Bulwer, Mark Ian Earl | Saunders, Michael Selby |
| Desvaux De Marigny, Louis Philippe Remi | Saunders, Neil Vaughan |
| Lishman, John-Louis | Steytler, Colleen Mary |
| Oellermann, Walter Erwin | Stidolph, Alexander Richard |
| Ringelmann, Hans | Vickery, Julian Andrew |

BACHELOR OF AGRICULTURAL MANAGEMENT (FOUR-YEAR)

| |
|------------------------|
| Makiza, Sivuyile Brian |
|------------------------|

BACHELOR OF SCIENCE IN DIETETICS

| | |
|-------------------------|-------------------------------|
| Adonis, Sinethemba | Bouchier, Carmen Michelle |
| Arnold, Margaret Louise | Bridgeford, Vanessa Gabrielle |
| Austin, Genevieve | Buthelezi, Phumelele |
| Bennett, Aileen Esther | Clarke, Carine Michelle |

Conroy, Lara Kim
 Cooper, Nicole Corinne
 Cowie, Barbara Anne
 Dhookhun, Rosida
 Ernest, Jean Ernestine
 Forman, Michal Dafna
 Girdwood, Tracey Elizabeth
 Gregersen, Sharon Lynn
 Hlongwane, Nokuthula Khanyisiwe
 Holesgrove, Marcelle Dawn
 Holzinger, Tamaryn Talitha
 Ketwa, Lindelwa
 Konar, Sharona
 Lea, Valerie Suzanne
 Lekoloane, Masadiki Violet
 Lord, Wendy Joy
 Mansoor, Fatima Bibi Essop
 Meekin, Sarah Jean
 Mincher, Lynne Jennifer

Moosa, Fathima Ismail
 Nkosi, Gugulethu Nonkululeko Lethokuhle
 Nunkoo, Sherleen
 Nyembezi, Nompumelelo Lindile
 Thembaletu
 Ponting, Lauren Marj
 Pullan, Claire Deborah Ayrton
 Razak, Sadia
 Redmond, Debrah-Kim
 Rothbart, Toni
 Schaefer, Liesel Ruth
 Seymour, Emma Jane
 Sharma, Tanuja
 Stein, Taryn Pier
 Tapper, Shannon Jane
 Torr, Tina Sherie
 Tukwayo, Nondumiso Abigail
 Vance, Carolyn Ann
 Walker, Jane

BACHELOR OF SCIENCE

(Major subjects passed in the first class are shown in brackets)

Anthony, Lynette Maria
 Baloyi, Wisane Eddy
 * Bennett, Amanda Judith(Botany, Plant
 Pathology)
 Bhengu, Reynold Erick Sizwe
 Bhengu, Muzikayise James
 Bhugalee, Noorjahan Bibi
 Brodie, Patricia Anne(Botany)
 Bromfield, Iain
 Bunsee, Pranesha
 Buntting, Elise Eva
 Cairns, Holly Joy
 Camp, Greville Lionel
 Canter, Ross Ian
 Chetty, Sharlene
 Clarke, Dino Justin
 Cunningham, Debra Margaret
 Davies, Scott Llewellyn
 De Klerk, Andrew George
 Delport, Hayley
 Everett, Caroline Mary

Fanana, Mphaphati Suzan
 Gajathar, Yuren Vijay
 Gnirck, Belinda Ulrike
 Green, Ryan
 Gumede, Zandile Patricia
 Hadebe, Adolph Slindokuhle
 Hadebe, Sifiso Sokesimbone Devine
 Hadebe, Eugene Sibhekiseni
 Haffejee, Farhana
 Hallett, Kerry Lyn
 Hamblin, Kate Mary
 Hansa, Aneesha
 * Haw, Tabitha Simone
 α Haynes, Delia Ann(Chemistry, Genetics)
 Horan, Mark John Christopher
 α Hughes, Kerry Louise(Biochemistry,
 Microbiology)
 * Jackson, Sandra Lee(Chemistry, Applied
 Chemistry)
 Job, Jonathan Arthur
 Jones, Kenneth Evan

* Degree awarded **cum laude**

α Degree awarded **summa cum laude**

Jordan, Ingrid Elizabeth
Kandan, Meshentha
Khanyile, Watterson Nhlanhla
Khoosal, Geeta
Khuzwayo, Cornelis Mncedisi
Kilroe, Brett Victor
Kinvig, Richard Grant
Laing, Bronwyn Alison
Lakhraj, Rakhee
Landers, Louise Kim (Biochemistry)
Luyt, Robyn Pamela
Macdonald, Cedric Dougan
Maharaj, Sham
Makawu, Mantsepo Caroline
Makhavhu, Dzivhuluwani Simon
Malete, Faith Tshepiso Christina
Mansfield, Lara Ray
Maringa, Themban Sidwell
Mazwi, Thembisa
Mbuze, Babalwa Vuyokazi
McLaren, James Maxwell
Meyer, Brendan
Miller, Michael James Macrae
Misauer, Linda
Mitchell, Jennifer Lyn (Geography)
Mkhize, Nonhlanhla Patience
Mkhwanazi, Daniel Dennis
Mnguni, Thabo Josiah
Mntambo, Adolphus Qedusizi
Moodley, Shaun Duane
Moodley, Yoshnie
Morgan, Leigh Ann (Genetics)
Motha, David Sikhulumu
Msiska, Zola
Mthethwa, Dumisani
Mtshatsha, Tandiswa Ntombizodwa
Mukona, Michael Mulalo
Muller, David
Ndlela, Robert Mfiswa
Nieuwoudt, Michelle Genevieve
Ngcobo, Delisile Rebecca
Nonyane, Bareng Aletta Sanny
O'Brien, Paula Prudence Tristin

* **O'Leary**, Matthew Blyth (Computer Science, Statistics)
Pay, Robyn Lynne (Biochemistry)
Payne, Erlene Lillian
Pearson, Hayley Genevieve
Peerbhai, Imraan
Phillips, Michelle Lisette
Prangle, Anthony Ross
Prowse, Michelle Lynne
Raja, Ashwina
Ramballi, Sunil
Reid, Paul-Dillon
Robinson, Paula Marguerite
Roelofsen, Aukje
Russell, Marlene
Safla, Aslam
 α **Schmidt**, Tracy (Chemistry, Microbiology)
Schuitemaker, Justin
 α **Scott**, Jackie Lorraine, BSocSc, (Computer Science, Mathematics)
Sewambar, Nirasha
Sewbarun, Nivedna
Sewjee, Renoir
Sha, Imran
Shange, Siphesihle Nokuthula
Sharples, Shaun
Sibisi, Nomathamsanqa Nonjabulo Samukelisiwe
Sikhakhane, Sindisiwe Sylvasia
Smith, Jason Lloyd
Sotheni, Luckman
Tetyana, Pokazi
Titshall, Louis William
Van Der Meer, Neil Anthony
Volans, Simon
Von Mayer, Grant
Wallis, Stephen Edward
Warby, Richard Ashley Frank
Williams, Lenti Patricia
Willis, Anita
Wilson, David Andrew
Zondo, Patience Thembelihle

* Degree awarded **cum laude**

α Degree awarded **summa cum laude**

BACHELOR OF AGRICULTURE

Khumalo, Lucky Romeguis Boniface
Moso, Tankiso Henry

Sokhetye, Mongezi Bhelu
Thompson, Benedict

DIPLOMATES

POSTGRADUATE DIPLOMA IN DIETETICS

Atkinson, Lauren Anne, BScDiet
Barrington, Sarah Anne, BScDiet
Chetty, Pamala, BScDiet
Cuba, Zolelwa, BScDiet
FitzGerald, Catherine Anne, BScDiet
Goolam Hoosen, Nasreen, BScDiet
Irvine, Debra Mary, BScDiet
Jackson, Claire Helen, BScDiet
* **Logan**, Nicola June, BScDiet
Marais, Stevan James, BScDiet

Mopeli, Dineo Alina, BScDiet
Nel, Keri-Lyn, BScDiet
O'Leary, Eleanor Sarah, BScDiet
Pillay, Kirthee, BScDiet
Schonfelder, Nicola, BScDiet
Shabalala, Prudence Ntombifikile,
BScDiet
Torgius, Laura Jayne, BScDiet
Van Tonder, Deborah El-Vira, BScDiet

UNIVERSITY DIPLOMA IN RURAL RESOURCE MANAGEMENT

Bhengu, Abigail Nozipho
Biyela, Mduduzi Eric
Bulose, Desmond Sithembiso
Cherane, Matodzi Judas
Dladla, Vusi Collin
* **Dlamini**, Gugu Precious
Dube, Eugene Sibongiseni
Gule, Khanya Felix
Gumede, Rachel Jabulile
Khanyile, Bonisiwe Sthabile
Khumalo, Victor Bhekinkosi
Lusu, Mlungiseleli
Luthuli, Buyile
Magwaza, Precious Kenneth Muzi
Mawande
Masango, Wiseman

Memela, Bhekathina Eugene Bhelizitha
Mkhize, Ivion Velindaba
Mkhize, Jacobs Sipiwe
Mkhize, Vusi Mathews
Mkhungo, Gugulethu Patricia
Mngomezulu, Joseph Dumisani
Molefe, Sebastian Thabo
Monatisa, Millicent Puleg
Ndlovu, Mbongeleni Mathews
Ngubane, Steven Zama
Ngwazi, Bongiwe Magnonet
Phakathi, Nompumelelo Goodness
Shange, Nicholas Jabulani
Shusha, Thulani Percy
Tame, Nomsangaphi Agnes
Zulu, Sazi Sage Knowledge

UNIVERSITY FELLOWSHIPS

University Fellowships have been instituted in order to give special recognition to members of the permanent academic staff for distinguished work of special merit in their chosen fields. The standard of the work is judged primarily by publications and the contribution those have made in the particular field. Public presentation of work in the performing and fine arts may be regarded as equivalent to research and publications.

ROBERT MERVYN GOUS

Virtually anywhere in the scientific and agricultural world, the mention of "Poultry Science" and "South Africa" will elicit the name of Rob Gous. The University of Natal is indeed fortunate to have Professor Robert Mervyn Gous to head the Department of Animal Science and Poultry Science at its Pietermaritzburg Centre. He brings great lustre to the name of the University and, for this, we rightly honour him at this graduation ceremony.

In 1986 Professor Gous initiated the development of simulation models which predict the outcome of nutritional and management programmes in the poultry industry. In so doing he achieved an unusual but ideal marriage between academic depth and the development of practical solutions to long standing problems. He and his colleagues subsequently extrapolated these models and solutions to pig growth and the pig industry. Their work is now used in several countries, both in Africa and elsewhere, to maximise production. It is also used by international research laboratories to formulate further research hypotheses.

Professor Gous publishes widely and regularly in both local and international journals. In that small and select group of international agricultural scientists who influence the direction of research, he stands not only as an equal, but as a leader. He has been the recipient of many awards, notably the highly prized status of an "A" rated scientist by the South African Foundation for Research Development. This means that he and his research group receive generous financial support from this body. Such is his international reputation, however, that he also attracts valuable research contracts, and is the recipient of numerous prestigious consultancies each year.

In addition to his research achievements, Professor Gous is described as "a great teacher". He and his group have played a significant role in introducing experiential learning into the Faculty of Agriculture and, also, to the wider Pietermaritzburg campus. He inspires students and colleagues with his enthusiasm, his *joie de vivre*, his predilection for birds, and his original and adventurous approach to research and learning in the widest sense. One of his assessors paid him the following tribute: "for all his success and influence, Rob Gous has remained a very likeable man and a great ambassador for the country". We may add that he is as worthy an ambassador for the University of Natal. It is for this, and for his exceptional scientific and practical achievements, that we salute him with the award of a University Fellowship.

THE CHANCELLOR

"Chancellor" is an office that goes back to antiquity; the original cancellarius regulated access to the Roman Tribune. In medieval times, the office became associated with the heads of the writing departments of early kings. Because so few people were literate, a chancellor was automatically learned. This explains why heads and spokesmen of the early universities were also accorded the title. More recently, the office has become largely symbolic. The executive head of a university is its vice-chancellor.

Archbishop Hurley is the current Chancellor of the University of Natal. His predecessors are: The Honourable D G Shepstone (1949-1966), Dr G G Campbell (1967-1973), Dr B A Armitage (1973-1983), and the Honourable R N Leon QC (1983-1992)

THE MACE

The Chancellor's Mace, generally referred to as "The Mace", is used on ceremonial occasions presided over by the Chancellor and is regarded as the Chancellor's staff of "office". It symbolises the University's protection of its Chancellor.

The use of the mace as a symbol of authority has a long history. The head of a copper mace, which apparently dates back to the 12th century before Christ, has been excavated at Beyce Sultan in Asia. In the early centuries, churchmen who went to war often carried a mace in preference to a sword. One side of the mace-head was beautifully decorated with the owner's emblem and on the other side was a large knob which served as a weapon, and was always round so that the church law never to shed blood was always carefully observed! In the early centuries the mace was a symbol of the king's authority. During the power struggle between the king and the Commons in the 13th century, the king gave the speaker the mace as a symbol of his indemnity against arrest.

The Mace was designed by Mr G H Atkins, senior lecturer in sculpture in the University's Department of Fine Arts, was made in England and was first used at the 1970 graduation ceremonies.

A BRIEF HISTORY OF THE UNIVERSITY OF NATAL

In 1910, partly on the initiative of the Natal Colonial Government, the Natal University College (NUC) opened its doors in a corrugated iron annexe behind Maritzburg College. Eight professors taught 57 students Classics; English and Philosophy; Law; Modern Languages; Botany and Geology; Chemistry and Physics; Mathematics; and Zoology. In 1912 the Old Main Building at Scottsville opened.

In 1922 the NUC extended its activities to Durban with university level courses in commerce and engineering taught at the Technical College. In 1932 Howard College was opened on the Durban Berea, firmly establishing the dual-based character of the NUC.

As a result of the initiatives of the Fabian Socialist, Dr Mabel Palmer, 19 "Non-European" students were enrolled at NUC in Durban in 1936. This grew to nearly 900 by 1960, thus firmly establishing the principle that the NUC would serve the needs of the whole community. However, like the Medical School, founded in 1951 for African, Indian and "Coloured" students, classes still reflected the segregated nature of the surrounding society. The National Party's Extension of University Act of 1959 limited new enrolments other than those at medical school to Whites and brought a temporary halt to the University's aim of serving the educational needs of the whole community and severely restricted the autonomy achieved when the NUC became the University of Natal in 1949. Only when racial restrictions were partially lifted in 1983 could the University resume its task of serving the whole community. Since then it has welcomed increasing numbers of Black students who now make up the majority of the student body.

In 1952, Dr E G Malherbe, who had steered the NUC towards being a fully independent University in 1949, moved the administrative function from Pietermaritzburg to Durban. In 1973, in response to mounting travelling costs, the two Centres were academically separated. Each Centre came to have parallel faculties of Law, Humanities, Commerce, Science and Social Science. The teaching of Architecture, Engineering, Medicine and Music was, however, limited to Durban, and Agriculture, Theology and Fine Art to Pietermaritzburg.

The University of Natal has had some outstanding persons as Vice-Chancellors and Principals. The first principal, John Bews, was a world-renowned botanist and E G Malherbe was known throughout the world as an outstanding educationalist. In 1993 the University of Natal was the first university in South Africa to appoint a woman, Professor Brenda Gourley, as its Principal. The largely ceremonial Chancellors too, have been distinguished, not least of all the present incumbent, Archbishop Denis Hurley. Alumni include people as diverse as Alan Paton, Steve Biko and Alec Erwin. Honorary Graduates include Roy Campbell, Abdullah Ebrahim and Nelson Mandela.

In its 1989 mission statement the University of Natal affirmed its determination to "serve all sections of its community through excellence in scholarship, teaching, learning, research and development". 1997 and 1998 sees the University creatively responding to the challenge of a fast-changing environment. As a result of the possibilities provided by interdisciplinary studies as well as financial constraints it has become possible and necessary to rationalise academic, executive and support functions across the two Centres. This will enable the University to become more efficient and fulfil its mission well into the 21st century.

National Anthem of South Africa

Nkosi sikelel' iAfrika
Maluphakanyisw' uphondo lwayo
Yizwa imithandazo yethu
Nkosi sikelela
Thina lusapholwayo.

Morena boloka
Setjhaba saheso
Ofedise dintwa lematshwenyeho.

O se boloke, O se boloke
Setjhaba saheso
Sethjaba sa, South Afrika,
South Afrika.

Uit die blou van onse hemel
Uit die diepte van ons see
Oor ons ewige gebergtes
Waar die kranse antwoord gee
Sounds the call to come together
And united we shall stand
Let us live and strive for freedom
In South Africa our land.