

**Report on**  
**Entrepreneurship in the Curriculum: South Africa**

**for the**  
**Council for Industry and Higher Education**

**September 2006**  
(version 3)

**A D Heher**  
**Associates for Economic Development**  
[Tony.Heher@afed.co.za](mailto:Tony.Heher@afed.co.za)

## Report on Entrepreneurship in the Curriculum: South Africa for the Council for Industry and Higher Education

Table of contents	Page
Executive Summary	3
1. Objectives	4
2. Context and approach to the assignment	4
3. Cross-institutional initiatives	6
3.1 National Innovation Competition (NIC)	6
3.2 Shuttleworth Roadshow and Upstarts Innovation Incubator	7
3.3 The Big Idea	7
3.4 Technical and Business Education Initiative in South Africa (Tabeisa)	8
3.5 Brightest Young Minds (BYM)	
3.6 Enablis Business Plan Competition and Business Support	8
4. Institutional summaries	
4.1. University of Pretoria (UP)	9
4.2. University of Cape Town (UCT)	11
4.3. University of the Western Cape (UWC)	12
4.4. Cape Peninsula University of Technology (CPUT)	13
4.5. University of the Witwatersrand (Wits)	14
4.6. University of Johannesburg (UJ)	14
4.7. University of KwaZulu-Natal (UKZN)	14
4.8. Tshwane University of Technology (TUT)	15
4.9. Durban University of Technology (DUT)	15
4.10. University of the Free State (UFS)	16
5. Other entrepreneurship activities	16
6. Summary and conclusions	18
Appendices	
1. Good Practice in Entrepreneurship Development within Higher Education - International Partners Brief	20
2. Clarification of terms of reference for work in South Africa	26
3. Persons interviewed	27
4. Entrepreneurship in Biotechnology at UP	31
5. Entrepreneurship Management Stream, Department of Management, University of the Western Cape – course outline	33
6. Short courses and outreach programme, Centre for Innovation and Entrepreneurship, University of Cape Town	37
7. Entrepreneurship short courses, Department of Management, University of Pretoria	42

## Executive Summary

The majority of higher education institutions in South Africa offer entrepreneurship training in one form or another. These range from single electives in 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> year courses to full undergraduate degrees in entrepreneurship. Most of the business schools and departments of management science also offer a range of post graduate courses at Honours and masters level and also as part of MBA programmes.

The academic teaching programmes are complemented by a range of initiatives that support the development of entrepreneurial ideas by students, such as the National Innovation Competition, the Big Idea and the Brightest Young Minds organisation.

With regard to evaluation of the programmes according to the matrix proposed in the International Partners brief, this was difficult as few of the programmes had formal evaluation methods in place. This was even for hard measurable metrics such as number of businesses actually started and even less so for the soft measures such as changes in entrepreneurial attitudes. A number of the programmes did recognise the need to undertake more measurement of programme outcomes and some research was in progress in this area.

A feature of the South African scene is that the spread of entrepreneurship education out of the business management arena and into the mainstream of other faculties and departments was more the exception than the rule. Where it did occur it was limited in scope and duration. No institution was encountered where entrepreneurship education was supported as a central university theme with support at executive (vice chancellor) level.

The South African section of the Global Entrepreneurship Monitor, however, indicates that graduates of South African tertiary institutions are no less likely than their peers in other countries to be entrepreneurial. The conclusion from this is that entrepreneurial education is as good as elsewhere, but still leaves the question open as to whether outcomes could be improved by better evaluation and determination of what constitutes best practice and by wider dissemination into the broader student population.

In this respect there was interest in the international dimensions of the project and it is hoped that the international results will be available from which practitioners in South Africa can learn.

## 1. Objectives

From the Contract for Service of 31 March 2006 the objectives of the contract are:

### **“AIM OF THE CONTRACT**

To research and identify how the Higher Education experience in South Africa helps encourage and develop an entrepreneurial attitude in students. Examples of good practice from both within the curriculum and from extra curricula workshops, clubs, voluntary work etc. and how exposure through these to working entrepreneurs and perhaps venture capitalists and the sharing of experiences with recent graduates, will help to complete the picture.

### **OUTPUT**

Examples of good practice from a range of institutions plus the identification of cross-cutting themes independent of country or culture (where possible).”

In addition to these objectives, the international consultants brief provided additional background to the project. This is attached as Appendix 1. This brief provided a formal framework for the categorisation of outcomes (Appendix 1 of Appendix 1) which were proposed as a basis for assessment of how well each outcome was being met and for identifying institutional good practice for showcasing and dissemination.

From the initial interactions with a range of institutions in South Africa, however, it became clear that there would be difficulties undertaking this method of analysis in South Africa. Entrepreneurship education in South Africa is generally embryonic and focussed mainly on electives or courses in the Schools of Commerce or Management with no programmes operating on a wider institutional basis. More importantly, no institution is using any of the formal outcomes measures advocated in Appendix 1 and it was not possible within the scope of this project to make assessments using that matrix of criteria.

As a consequence it was felt that there no institutions that could be formally ranked and showcased for their best practice. After discussion with the CIHE’s representative Philip Ternouth (email of 17 May 2006 and reply of 26 June 2006 – see Appendix 2) it was agreed that the report on activities in South Africa would focus on the descriptive aspects.

## 2. Context and approach to the assignment

### **Context**

South Africa has participated in the international Global Entrepreneurship Monitor (GEM) project since 2001, providing useful longitudinal and comparative indicators of the state of entrepreneurship in South Africa. The full GEM report is

available from the UCT Centre for Innovation and Entrepreneurship at <http://www.gsb.uct.ac.za/gsbwebb/default.asp?intpagenr=228>

Key issues highlighted in the report include:

- South Africa's Total Early-stage Activity (TEA) rate in 2005 was 5.1%, the lowest rate of all developing countries. This low rate was attributable to not only the low rate of necessity entrepreneurship (2%) but also to the low opportunity entrepreneurship rate (3%).
- The established firm rate (i.e. the percentage of adults who are owner-managers of businesses that have paid wages for more than 3.5 years) is 1.3%. This figure is the lowest of all the developing countries, and one of the four lowest of the GEM countries sampled in 2005.
- The potential of tertiary educated adults to create employment is 2.5 times greater than for adults who have only completed secondary education, and 11 times greater than for adults who have not completed secondary education.
- South Africa's tertiary education system prepares young adults relatively well with the knowledge and skills required to start a business. Young South African adults with tertiary education are almost as likely to start an opportunity-motivated business as are their peers in other developing countries.
- South African adults who do not have tertiary education are significantly less likely than their counterparts in other developing countries to be able to sustain an opportunity-motivated new business venture. This implies that South African schools are doing far less than schools in other developing countries to develop the skills required for entrepreneurship.

The report notes that the survey results have important policy implications. Responsible policymaking requires an assessment of the policy trade-offs and that government needs to establish a hierarchy of objectives, rather than trying to implement all the objectives at once, often with conflicting results. While redistribution of wealth and opportunity may be the long-term objective of small business development, in the short term, given high levels of unemployment, job creation should be paramount. Irrespective of which policy objective is pursued – be it economic growth, job creation, redistribution or poverty alleviation – improving primary and secondary education is critical.

### **Approach to the assignment**

An attempt was made to contact every higher education institution in South Africa (i.e. all 22 institutions). In other words a sampling approach was not used. The contacts were derived from three sources:

- The full list of institutions that participated in the Innovation Fund Business Plan Competition in 2004/05
- The participants in the Academic Entrepreneurship Society of South Africa (AcES) annual conference

- Personal contacts from my time as President of the Southern African Research and Innovation Management Association (SARIMA)

Given the relatively fragmented and small scale of entrepreneurship education in South Africa it is possible that individual programmes were missed. Furthermore, some institutions did not respond at all and in a few cases they responded, but declined to participate in the project. A full list of all the institutions and individuals that participated is given in Appendix 3.

Most institutions that responded were subsequently visited. In some cases follow up was by telephone interview. Web based searches were also carried out for both participating and non-responding institutions. In the majority of cases the information available on the web was limited in scope. Comprehensive web-based information on entrepreneurship in higher education in South Africa is notable for its absence!

The information which was gained from these sources is summarised in section 4. There are also various cross-institutional or national initiatives that impact all or many institutions. Comment on the response of individual institutions to these programmes is made in section 4, but an overview of some of the activities which impact higher education is given in section 3.

Although the focus was on entrepreneurship in higher education, information on a variety of other entrepreneurship activities was encountered and is briefly reported on in section 5.

### **3. Cross-institutional initiatives**

The primary focus of this report is on the activities in the individual institutions but there are national initiatives which impact on, or are relevance to, several or all higher education institutions. These are discussed briefly below to avoid having to describe them under each institution. In addition to the initiatives described below there are several other business planning competitions, incubators and support agencies involved in entrepreneurship and small business support, but these are not specifically targeted at entrepreneurship in an academic environment, so they are not described here.

To summarise the initiatives described below, after an initial surge of interest and activities in 2003 and 2004, interest and support has faded and some have effectively ceased to operate.

#### **3.1 National Innovation Competition (NIC)**

*“The purpose of the NIC is to promote entrepreneurship among the youth through commercialisation of students’ technological inventions facilitated by a business plan”.*

The NIC has been the main national programme to promote entrepreneurship amongst students. There are 2 Phases to the NIC:

Phase I – the Institutional Phase (internal competition at HEIs) comprising the Institutional Innovation Competition; 1st Prize: R50 000, 2nd Prize: R30 000, and 3rd

Prize: R20 000. These prizes were awarded to each participating institution, provided they received at least 7 entries.

Phase II – the National Phase of the NIC. At the national level of the Business Plan Competition, awards were: 1<sup>st</sup> Prize: R300,000, 2nd Prize: R200,000 and 3<sup>rd</sup> Prize: R150,000. (In each case, 50% went to the winning student or student team and 50% to the department of the winning student or student team.)

The competition was started in 2004. In the first year 20 to 30 entries were received at each of the major institutions, but by the second year this had dropped to 8 to 10, with some institutions reporting difficulty in meeting the funding cut-off limit of 7 entries. The programme has also been plagued by bureaucratic delays and enthusiasm amongst the participating institutions has dwindled. The competition also has a fairly narrow focus on technological innovations only and it would appear to have had a small impact on entrepreneurial attitudes in the student population. In all the institutions visited, the departments that were teaching entrepreneurship were not involved (or even knew about) the competition which was in most instances run by either the technology transfer office or by a graduate student sponsored by donor funds.

### **3.2 Shuttleworth Roadshow and Upstarts Innovation Incubator**

In late 2003 the celebrated South African entrepreneur, Mark Shuttleworth, supported a national entrepreneurship roadshow at the campuses of most major universities in the country. Each event attracted 1000 or more students and demonstrated that there is a latent interest in entrepreneurship amongst a broad cross section of the student population.

The roadshow also marked the launch of Upstarts Innovation Incubator which was a “soft” venture capital fund specifically aimed at student enterprises. HBD Venture Capital, Shuttleworth’s investment arm, was the funder. Upstarts also provided funding to student entrepreneurship support centres at three universities: UCT, Stellenbosch and Wits. These centres were to be the feeders of deals to the Upstarts Innovation Incubator and also acted as the coordinators of the NIC described in 3.1 above.

However, after 18 months operation and 9 deals in total, Upstarts was discontinued and funding for the three universities is due to cease in 2006. The reasons given were that HBD Venture Capital had decided to focus on later stage investments and that the student enterprises had proved to be too long term and too risky.

### **3.3 The Big Idea**

In 2003, Mark Shuttleworth’s venture capital company, HBD together with the Innovation Fund launched The Big Idea, a series of conferences and workshops aimed at South African entrepreneurs and future entrepreneurs. The conference and workshop were run in 6 major centres around the country and focused on innovation and entrepreneurial topics ranging from lateral thinking to real-life case studies from existing entrepreneurs. Experts shared practical and effective problem-solving methods, and delegates were provided the opportunity to network, share views and experiences.

The initial events followed up on the roadshow (3.2 above) and targeted university students but the 2004 and 2005 events focussed more on the general public. No events are scheduled for 2006 and as of August 2006 HBD stated that *“another sponsor is being sought to continue the events”*.

### **3.4 Technical and Business Education Initiative in South Africa (Tabeisa)**

Tabeisa is a partnership of six higher education institutions from South Africa and the UK:

- Cape Peninsula University of Technology
- Durban Institute of Technology
- Walter Sisulu University of Science and Technology
- Tshwane University of Technology
- Coventry University
- University of Greenwich

Tabeisa works through Tabeisa Enterprise Centres (TECs) which are located at each of the four South African Universities. As well as business support and advice the TECs provide entrepreneurship training programmes. Tabeisa is currently developing an entrepreneurship toolbox that has a variety of learning resources that can be used to train and support entrepreneurs.

Tabeisa has received funding from a variety of sources including the Department for International Development (UK), National Research Foundation, and Anglo American De Beers Chairman's Fund. However, the major funder of Tabeisa has been the European Union.

Tabeisa supports both community based entrepreneurs and entrepreneurs drawn from the student body. At present this splits approximately 80/20 i.e 80% of participants are from the wider community and 20% are students.

### **3.5 Brightest Young Minds (BYM)**

BYM is a student based organization that links 100 of the most entrepreneurially minded students from around the country into a network that explores entrepreneurial ideas for both business and social development. It is modeled loosely on the Australian BYM Foundation although the Australian version is more focused on social entrepreneurship.

Besides promoting a range of activities on individual campuses, the main activity is an annual conference which brings the 100 selected students together (out of over 1000 who apply) for a week of interactive events, many of them involving speakers from local business.

### **3.6 Enablis Business Plan Competition and Business Support**

The Enablis business plan competition offers R1,25m in prizes and R8,75m in funding for new businesses. It is part of the international Enablis movement which is substantially supported from Canada. The local operation is supported by First National Bank and Khula Enterprise Finance. While aimed at society at large and not only at ideas originating from higher education, it does offer additional opportunities for student entrepreneurs as well. Its key objectives are

stated to be to “create an organized and interactive network of entrepreneurs in developing countries and give them access to a host of affordable business resources, capacity-building in Information Communication Technology (ICTs), and risk financing”.

#### **4. Institutional summaries**

The discussion in this section is limited to those institutions which responded and which have entrepreneurship programmes.

##### **4.1. University of Pretoria (UP)**

UP has a variety of entrepreneurship programmes in various departments, including:

- Department of Business Management in the Faculty of Economic and Management Sciences
- The Department of Engineering and Technology Management in the Faculty of Engineering
- An entrepreneurship module in the Department of Biological Sciences
- The National Innovation Competition run by the Research Department

##### **4.1.1 Department of Business Management**

The department has offered a 3 year BCom majoring in entrepreneurship since 1988. Approximately 90 students are currently enrolled in each year i.e 270 in total. The programme covers an introduction to the entrepreneurship process in 1<sup>st</sup> year through to the preparation and presentation of a business plan to a business audience in 3<sup>rd</sup> year. A range of business management courses including marketing, finance and logistics are also offered in addition to the entrepreneurship offerings.

In addition to this undergraduate degree, the department offers an Hons course in entrepreneurship, and MPhil programme and a wide range of short courses. An elective course is also offered at 3<sup>rd</sup> year level to other faculties. Current enrolment is about 200 students from a range of faculties, except science and engineering (who run their own courses.)

A number of short courses are also offered which are popular with companies and mature students. A list of the key courses offered is provided in Appendix 7.

From 2007 the department has been asked to offer an entrepreneurship foundation course to all 2700 students in the Faculty. They admitted that this would pose a significant teaching challenge as the teaching methods used in the smaller group classes could not easily be transferred to much larger classes.

Monitoring of graduates with respect to who actually starts, and succeeds in, business has not been undertaken as yet, but it is recognised that this is an

important aspect and it is hoped to undertake these longitudinal studies in future.

#### **4.1.2 Department of Engineering and Technology Management**

The department offers programmes at the honours, masters and doctoral levels. The objective is to provide management education for the practising engineer and technologist irrespective of undergraduate discipline. The programme has been running for 10 years. Approximately 80-100 students participate in the Hons programme, mainly full time, whereas the masters course has 40 students, the majority being mature students drawn from industry who are studying part-time.

While not an entrepreneurship programme as such, entrepreneurship topics are an important component of the course.

A key outcome measure is the degree of acceptance of the entrepreneurial ideas developed during the course by the course participants sponsoring organisations. The fact that key corporate sponsors continue to send staff to the course year after year is also considered a key success measure. The course is the largest of its kind in the country.

#### **4.1.3 Department of Biological Sciences**

The purpose of the course is to provide an understanding of contemporary biology and biotechnology as a basis for successfully launching new high-tech ventures. In addition to advanced training in the fundamentals of biotechnology, the course tracks the relationship between the academic innovation and its application, with an emphasis on blurring the distinction between academic and industrial research. The course covers one semester in the second semester of the Honours Program. It is intended to connect the students with the business executives, leaders, experts and venture capitalists that are crucial for success in start-up and growing ventures.

The course is innovative in that it directly links teaching in the state of the art biotechnology with applications in business and encourages students to start thinking entrepreneurially. This is a different approach to most entrepreneurial teaching that is general in nature and leaves the student to find the application. The course has only been running for two years (2005 and 2006) so it is too early to assess outcomes. More information about the course is given in Appendix 4.

A minor "success" of this CIHE entrepreneurship project is that Biological Sciences was unaware of the entrepreneurship courses in the Department of Management and vice versa. Putting the two in touch with each other has had positive benefits and they are now working together.

#### **4.1.4 Department of Research Support and Development**

The Intellectual Property and Contracts section of this department runs the National Innovation Competition described in 3.1 above. This is a challenging part-time task for one individual and they have indicated that it will be difficult

to continue with the activities required by the Innovation Fund without greater support.

#### **4.2. University of Cape Town (UCT)**

The primary focus of entrepreneurial training at UCT is the Centre for Innovation and Entrepreneurship (CIE) which is located in the Graduate School of Business (GSB). A feature of the CIE is that it is entirely self supporting through donor funding and income from short courses. It receives no direct support from the university and there are no academic staff from the university employed in the CIE.

Since inception in February 2001, the CIE has directed its efforts towards three main areas: teaching & material development; research & public policy and business creation & support. With regard to teaching & material development, the CIE started off directing its effort towards post-graduate MBA students but its teachings have now been expanded to include three levels of academic endeavour: post-graduate MBA, Executive MBA and Executive Education Programmes; under-graduates, and school leavers.

Elective courses are offered to both part-time and full-time MBA students which include Business Planning, Support Emerging Enterprise (SEE), Social Entrepreneurship and Raising Funds in South Africa. Business Planning is also a required course for all the Executive MBA students.

The programme to introduce entrepreneurship to final year under-graduate students and post-graduate students on the main campus of UCT has been markedly expanded since it first started in 2001. New Planning Venture courses are conducted for a number of Faculties and departments within UCT all based upon the principal of the experiential approach in which the students are required to work on specific "live" projects and ultimately prepare a feasibility plan for presentation to members of faculty and outside observers.

The departments involved included Chemical Engineering, Mechanical Engineering, Electrical Engineering, Computer Science, Socio Economic Development and Molecular and Cell Biology. A comprehensive programme entitled "Planning for New Venture Products" was run over an intensive period for post-graduate M.Sc. Business Management students in the department of Mechanical Engineering. It was conducted over an 8 week period and culminated with student groups presenting their Business Plans to members of faculty.

The Raymond Ackerman Academy for Entrepreneurial Development (RAA) was started in February 2005 funded by a grant from the Ackerman Foundation. The goal of the Academy is to take school leavers primarily, but not necessarily, from previously disadvantaged communities and to promote the development of a spirit of entrepreneurship as a means to personal development and job creation in the South African context.

The Academy's objectives are to develop numeric and financial literary skills; promote self-development and life-long learning skills, and impart business skills. The course programme provides a combination of didactic (classroom) learning, individual learning, group sessions and practical work. The Academy's target group includes school leavers who have "fallen through the gap" of tertiary

education and are thus leaving school with limited skills or opportunity for employment, including potential self-employment.

The first intake of 25 students in February 2005 completed the 6 month programme and graduated in August. A second intake of 32 students started in July 2005 and graduated in November. After completion of each course, selected students will be given the opportunity to participate in a 3 – 4 month internship programme with leading companies in Cape Town. This is not a means of finding employment, but rather to give them the opportunity of gaining practical experience.

Those students wishing to consider starting their own business will continue to receive considerable support from the CIE in the form of mentoring by MBA students and alumni of the GSB; access to loan funding from the Small Business Development (SBD) unit of the CIE, and access to equity funding from monies donated by Mr Ackerman.

The CIE is monitoring the progress of each of the courses and the progress of graduates. The figures for the two courses in 2005 are as follows:

Course	Total Students	Removed from the program	Dropped on request	Graduated	Not Graduated	Study Further	Work	Own Business	Internship
Jan-July	25	1	1	19	4	6	12	5	4
July-Nov	32	2	1	28	1	8	8	5	8

For the last five years the CIE has been responsible for the South African Global Entrepreneurship Monitor Report (GEM). A brief overview of the GEM report was given in section 2 above.

The CIE is also involved in an extensive outreach programme and runs many short courses, which are important sources of revenue. An extract from the CIE annual report is given in Appendix 6 which describes these activities in more detail.

#### 4.3. University of the Western Cape (UWC)<sup>1</sup>

Entrepreneurship development in UWC is situated in the Department of Management in the Faculty of Economic and Management Sciences. There are two main components: a teaching and research component running from 1<sup>st</sup> year through to PhD and an Entrepreneurship Development Unit (EDU) that is focussed on outreach to small business.

Entrepreneurship started as a module at Hons level 15 years ago, but 9 years later it was recognised that a wider range of courses was needed. In the 1<sup>st</sup> year a module on entrepreneurship is taught to all 800 to 1000 BCom students. The 2<sup>nd</sup> year intake of around 60 to 70 is selected from about 120 applicants

---

<sup>1</sup> For institutions in the Western Cape (UCT, Stellenbosch, UWC and CPU), the personal interviews have been supplemented with material from the chapter Tertiary Institutions (in the Western Cape) by Pradeep Brijal in the monograph South African Entrepreneurship Education and Training edited by Fredrich and Visser and published by Leap Publishing in 2005.

who submit a written motivation to participate. The 2<sup>nd</sup> year course consists of two semesters. In the first, the focus is on the theory of business whereas in the second, the students establish and run a real business on campus. The 3<sup>rd</sup> year has 4 modules on various aspects of small business management.

An innovative measurement and evaluation programme was run on the 2<sup>nd</sup> year students in 2004 comparing the change in entrepreneurial attitudes and behaviours over the course of the year, using both the group of 69 course students and a control group<sup>2</sup>. (This research was the only formal evaluation of the impacts of entrepreneurship education that was encountered in the course of this assignment that came close to meeting the criteria in Appendix 1 of Appendix 1.)

More detail about the content of the programme is given in Appendix 5, together with a list of the modules that are taught in each semester.

The Department also runs service programmes in entrepreneurship for several other disciplines including Pharmacy, Occupational Therapy, Dietetics and Human Ecology. These are compulsory 3<sup>rd</sup> year courses running over 6 months to assist graduates in these fields to run their own practices.

The Entrepreneurship Development Unit (EDU) is mainly focussed on outreach to small business in the Western Cape. The EDU was originally established in 1983 as one of eight centres in the country, but it is only one of two that remained operational after funding was withdrawn in 1994. [www.uwc.ac.za/ems/man/edu](http://www.uwc.ac.za/ems/man/edu)

#### 4.4. Cape Peninsula University of Technology (CPUT)

CPUT was formed in 2005 out of a merger of the Cape Technikon and the Peninsula Technikon. Each had their own entrepreneurship programmes which are still in the process of being rationalised in the merged institution.

At the Peninsula campus of CPUT, the major enterprise initiative is the Tabeisa programme. (See 3.4 above for a description of Tabeisa). An undergraduate degree in Small Business and Entrepreneurship is also offered which covers all the key aspects of small business management.

At the Cape campus the entrepreneurial programmes are aimed to provide participants with an understanding of the basic principles of managing SMEs. The programmes are primarily attended by owners and managers of SMEs and those considering starting their own businesses. The programme consists of the following components: Entrepreneurship, identifying an entrepreneur, being an entrepreneur, project management, marketing and financial management, legal issues and the business plan.

---

<sup>2</sup>Building Human Capital in Difficult Environments: An Empirical Study of Entrepreneurship Education, Self-Esteem, and Achievement in South Africa, Christian Friedrich and Kobus Visser. In Developmental Entrepreneurship: Adversity, Risk, and Isolation, International Research in the Business Disciplines, Volume 5, 355-378, 2006 Elsevier Ltd.

An E-Business Centre has also been established offering a Masters programme, short courses and business innovation and entrepreneurship projects in e-business. Opportunities are created for students to start their own IT-related business and the faculty provides support in developing ties with industry.

#### **4.5. University of the Witwatersrand (Wits)**

Support for student entrepreneurship at Wits is primarily provided by the Innovation and Entrepreneurship division of Wits Commercial Enterprise, a wholly owned subsidiary of the university. The function is funded primarily by HBD Venture Capital, but only to the end of 2006. The future of the unit is uncertain after that and alternative funding sources are being sought.

The unit runs the National Innovation Competition at Wits and as part of that a wide range of outreach programmes have been conducted to encourage and help students to participate. In the first year of the competition 19 entries were received but this dropped to 12 in the second year and a concern was expressed that it may be difficult to reach the required minimum of 7 in future. In their view "the competition was a mess" with insufficient support from the Innovation Fund, poor timing in that the competition coincided with examination periods and continual postponement of dates by the Innovation Fund which led to disillusionment amongst students.

The unit also assists with entrepreneurship awareness building in a number of faculties and there is a clear need for this support from students. While the Wits Commercial Enterprises company is supportive, it is uncertain if this support will extend to funding the operations if the donor funds cease.

#### **4.6. University of Johannesburg (UJ)**

The University of Johannesburg is made up of the merger between the Technikon Witwatersrand (TWR) and the Rand Afrikaans University (RAU). The merger has caused considerable trauma with the outcome of senior appointments and the future of various units still uncertain.

The main unit supporting entrepreneurship development at TWR is a separate (wholly owned) company called Busitech. The establishment, and trials and tribulations of Busitech, make a sobering case study, details of which cannot be provided here as there are still legal cases pending.

These problems experienced by Busitech illustrate the extraordinary difficulties that innovators face in getting good ideas accepted and acted upon in the face of administrative and bureaucratic obstacles which unscrupulous (or frustrated) "innovators" take advantage of.

#### **4.7. University of KwaZulu-Natal (UKZN)**

UKZN is the new institution arising from the merger between the University of Natal (UN) and the University of Durban-Westville (UDW). The Centre for Entrepreneurship was started in the then UN in 2001 with the assistance of funding from the Anglo-American Chairman's Fund and the National Research Foundation. It operated under the auspices of the School of Economics and Management on the Durban campus and the School of Business on the Pietermaritzburg campus. The Centre operated in a partnership with the University of Limerick in Ireland.

The CfE carried out activities in the strategic areas of teaching & training, research & development, entrepreneurship at community level, capacity building of support systems and networking. Two 3<sup>rd</sup> year courses were offered to BCom and BBusSc students and students opting for these courses were awarded their BComm or BBusSc degree with entrepreneurship as a major. It was also planned to offer courses at Hons and Masters level.

Following the merger between UN and UWC, the Centre has relocated to the Westville Campus and a new director was appointed in 2006. The undergraduate courses have been dropped and the Centre is to focus more on technology transfer. The funding from the Anglo-American Chairman's Fund and the National Research Foundation ends in the near future and an application will be made to "mainstream" the Centre's activities i.e funded from the core UKZN budget.

#### **4.8. Tshwane University of Technology (TUT)**

The Centre for Entrepreneurship at TUT is located in Faculty of Management Sciences. Within the research focus area of Entrepreneurship & Innovation there are three streams: Business Clustering, Business Development and Management of Innovation. The Centre teaches primarily at post-graduate level offering a Masters course in entrepreneurship. The course is small with 10-12 participants selected from 30-40 applicants. A psychological test is conducted as part of the admission process, but is not used for selection at this stage. The purpose is to build a database and track graduates over a period of time and determine if there are predictors of success.

The Centre is working closely with other institutions in the SADC region and has partnerships with the University of Botswana, the Polytechnic Namibia and St Thomas University of Mozambique. It has proposed to offer a joint Masters in Entrepreneurship for Africa with these institutions modelled on the programme developed by the University of Trente in Holland. The concept is to have a degree recognised in all five participating countries (South Africa, Namibia, Botswana, Mozambique and Holland) and to support a regional research institute with a focus on research which supports entrepreneurship in society.

Undergraduate courses in entrepreneurship are limited to some in the Department of Management but service courses are offered to other faculties.

#### 4.9. Durban University of Technology (DUT)

The Technikon Natal and the ML Sultan Technikon merged in 2003 to form the Durban Institute of Technology which was renamed in 2006 to the Durban University of Technology. The primary entrepreneurship focus at DUT is the Tabeisa programme (described in 3.4 above) and the DUT is the national coordination office for Tabeisa.

The Tabeisa project has had two main phases. Tabeisa 1 had a strong focus on the development of learning materials, while Tabeisa 2, which runs from December 2005 to November 2007 is focussed primarily on entrepreneurship development through the Tabeisa Enterprise Centres (TEC). The centres offer 1 to 2 day workshops, run monthly and typically attended by 25 to 30 in a class. After attending a workshop, participants are offered mentoring and support with the initial stages of starting a business. Participants in the workshops are drawn from both the student body and also the wider community, with at present only about 20% being students and 80% coming from the community.

The programme is being evaluated on the basis of the number of businesses that are created. Ambitious targets have been set of creating 1200 businesses across the four TECs by November 2007. This translates to about 12 businesses per centre per month. It is recognised that there is a lack of mentoring and support staff available to meet these targets and a mentoring recruitment and programme has been commenced.

Assistance is also provided with accessing funds for business start-ups through relationships with relevant funding organisations including the Khula Katani programme and local banks. Katani and the banks also provide a feeder of potential participants to the Tabeisa workshops by referring applicants for funds to Tabeisa for training and business plan preparation before considering their applications.

#### 4.10. University of the Free State (UFS)

The Faculty of Management Sciences at UFS offers a range of entrepreneurship courses. These include a 2<sup>nd</sup> year elective, an Honours course in New Venture Creation and Entrepreneurship Management and an MBA elective New Venture Creation and Corporate Entrepreneurship. Entrepreneurship is also offered as part of the Management Development Programme and the BML degree. All the courses include a service learning component and the writing of business plans.

Support to other faculties is provided through the 2<sup>nd</sup> year elective course. Architecture and Quantity Surveying are two departments that have used this option. But it was felt that where possible it was better to include entrepreneurship as an integral part of the relevant course rather than as an add-on elective in another department.

### 5. Entrepreneurship outside higher education

There are a large number of entrepreneurship programmes outside of higher education but which have a bearing on outcomes in higher education. In the Western Cape alone, more than 16 organisations have been identified who are involved in delivering entrepreneurship training.<sup>3</sup> These have two main focuses: SME support and teaching entrepreneurship in schools. The school programme has received considerable support from a wide range of entities because of the decision by the national education ministry to introduce entrepreneurship in both primary and secondary schools as part of the Economic and Management Science curriculum.

The community based entrepreneurship activities are in many cases aimed at necessity entrepreneurship and have been criticized for not supporting sufficient attention to opportunity based entrepreneurship i.e. the businesses which have the capability to grow into bigger businesses and create employment. It has also been noted that effectiveness of the training programmes is severely hampered by scarce and limited financial resources to follow up business opportunities that are identified.

In an evaluation of a number of these programmes May<sup>3</sup> makes the following observations:

- “One of the major shortcomings of NGOs operational in this field is the lack of evaluation of programmes.
- Another perceived shortcoming is the lack of tracking of candidates in terms of their employability and/or entrepreneurial activities.
- Most of the training programmes are geared towards the developing of business skills (i.e. business functional areas), rather than developing entrepreneurial skills (e.g. creativity, innovation, opportunity identification, etc.)”

The GEM report (discussed in section 2 above) highlighted the poor entrepreneurial performance of adults who had only a primary or secondary education compared with those who had a tertiary education. While it may be tempting to conclude that the array of entrepreneurship programmes aimed at school level are ineffective, this is not necessarily the case as the overall standard of primary and secondary education in the country is considered poor. Without the many entrepreneurship interventions that are in place, the results would quite likely be even worse. Entrepreneurship training needs to build upon a sound foundation and cannot substitute for inadequate teaching of basic skills.

The 2005 GEM report also contains a detailed analysis of the effectiveness of entrepreneurship education in primary schools and is recommended reading for more background on this topic.

---

<sup>3</sup> Entrepreneurship training in the NGO sector by Christopher May. In the monograph South African Entrepreneurship Education and Training, edited by Fredrich and Visser, Leap Publishing 2005

## 6. Summary and Conclusions

Entrepreneurship in higher education in South Africa is characterised by a wide diversity of programmes. Every institution that was interviewed had entrepreneurship activities of one sort or another and in many of the institutions that were not included, information from other sources indicated that they also had entrepreneurship activities. These activities can be grouped in six broad categories:

U3	Undergraduate (3 year) programme in Faculty of Commerce or Management Sciences
G1	Graduate (1 year) programme at Honours or Masters level. Typically aimed at more mature students. Usually in Faculty of Commerce or Management Sciences
MBA	MBA electives
E1	Entrepreneurship module in 3rd or 4th year of undergraduate degree in Science or Engineering
SE	Student entrepreneurship activities
OSC	Outreach and short courses

The activities that are undertaken by the universities that participated in the survey are summarised in the table below.

In addition to the activities in higher education, there are also a wide range of entrepreneurship support activities in primary and secondary schools and in society at large. So in general it can be stated that there is reasonably wide spread awareness of the need for supporting and growing the entrepreneur in South Africa.

	U3	G1	MBA	E1	SE	OSC
University of Pretoria	x	x		x	x	x
University of Cape Town			x	x		x
University of the Western Cape	x	x		x		x
Cape Peninsula University of Technology	x				x	x
University of the Witwatersrand				x	x	
University of Johannesburg					x	x
University of KwaZulu-Natal		x				x
Tshwane University of Technology		x		x		
Durban University of Technology				x	x	x
University of the Free State		x	x	x		
	<b>3</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>5</b>	<b>7</b>

The question that can be asked, however, is how effective are these programmes, or, how could they be made more effective or have a wider reach. This also relates to the question as to the extent that entrepreneurship education should be

massified versus targeted at that segment of the student population who are likely to become entrepreneurs. In general the entrepreneurship programmes that are offered have minimal or no broader institutional support. Many are donor funded or are simply viewed as one of the many courses offered at the institution. There is little evidence of any high level executive (i.e at vice chancellor level) support for entrepreneurship across the campus or in faculties other than business science or management.

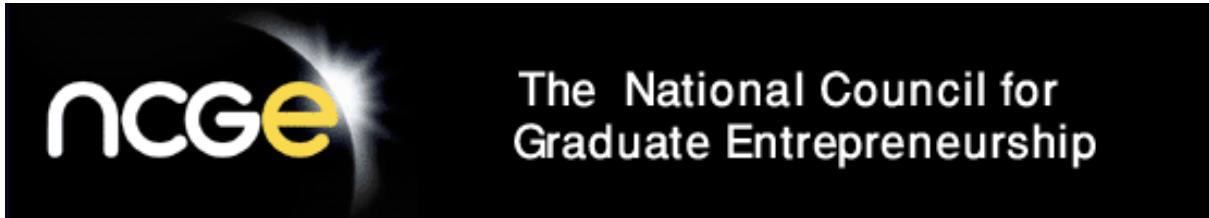
Evaluation of the impact of entrepreneurship training using the common analytical framework of Appendix 1 of Appendix 1 proved problematic. The framework was shared with every person who was interviewed but none felt it was appropriate or possible to complete in any meaningful way. In virtually all cases there was no formal evaluation system in place by which performance in terms of the framework could be judged. The wide diversity of programmes also makes the identification of best practice difficult.

Using the six types of entrepreneurship listed above, some examples of good practice did emerge from the interviews and data collection. These are listed below for each of the categories.

U3	University of Pretoria and University of the Western Cape
G1	University of Pretoria
MBA	University of Cape Town
E1	University of Pretoria
SE	Durban University of Technology
OSC	University of Pretoria, University of Cape Town, Durban University of Technology

The need for constant evaluation was recognised by many and it was reported that it was planned to start tracking performance in areas such as actual businesses started in the future. One programme (at UWC) had started tracking changes in entrepreneurial mindsets using a before and after the course evaluation and a control group. This showed promise, but it was too early to reach definitive conclusions.

Many of the entrepreneurship teaching programmes were complemented by research programmes that were reflective on the nature of entrepreneurship, what was effective and on various approaches to evaluation. There is an active group of academics who participate in the Academic Entrepreneurship Society of South Africa (AcES) and share information on their teaching and research programmes.



## **Good Practice in Entrepreneurship Development within Higher Education**

### **International Partners Brief**

#### **Background**

The NCGE believes that Higher Education (HE) institutions play a significant role in the development of entrepreneurial attitudes, aspirations and capabilities in their students. Such capabilities are essential for university graduates in preparing for their future careers in employment and self-employment. It is clear that today's graduates are likely to have many different jobs and forms of employment throughout their lives as globalisation and technology change forever the nature of work and its role in society.

In order to realise this potential, NCGE is leading a partnership project which will:-

1. Develop an intellectually robust rationale for HE institutions to engage in entrepreneurship development within its students and graduates
2. Support this with documented cases of good practice in UK HEI's from which a set of generic principles may be extracted
3. Compare good practice cases and principles in the UK with cases from international comparators

In order to achieve the third of these objectives the Council wishes to engage international partners to:

4. Follow a proposed methodology that aims to meet the project objectives,
5. Undertake the appropriate fieldwork to collect and then assimilate data,
6. Prepare a report with clear recommendations for NCGE and partners,
7. Document a minimum of 16 case studies of individual higher education institutions,
8. Capture how they engage in delivering the entrepreneurial outcomes listed in the framework underpinning this document, and
9. Identify exemplar good practice for showcasing at future NCGE events in the UK

This brief sets out the terms of reference of the assignment.

#### **The Assignment**

The principle which underlies the assignment is that "entrepreneurship" is a complex construct which incorporates factual learning, expertise, behaviours, values and beliefs. Thus the encouragement of entrepreneurship by an Institution can be identified and

assessed by the degree to which it supports and participates in the development of a series of desirable outcomes which together are deemed to constitute "entrepreneurship". These are listed in the Appendix.

The international partners will agree to:-

- Identify a sample of 16 higher education institutions which will demonstrate entrepreneurship development across different contexts as described in the detailed specification (below). 16 cases allows for 2 examples against each of the 8 categories of outcomes as presented in the framework attached in the Appendix
- Document how each institution encourages the desirable entrepreneurial outcomes listed in the Appendix (2 in each category),
- Prepare a case study of each institution, and
- Analyse each case study in a common analytical framework which is provided as part of the brief in the detailed specification, and which is designed to showcase exemplars of good practice in developing each of the outcomes.

### **Detailed Specification**

The deliverables for the assignment will include:-

- 1) A sample of 16 institutions, drawn from a nominated long-list of around 30 possible institutions, which will be identified and selected by the international partners to enable the good practice exemplars to be shown in a range of different contexts; such contexts might include all or any of:-
  - a. Different types of higher education institutions
  - b. regional location of institution
  - c. types of learner
  - d. type/mode/levels of study
  - e. purpose of activity – outcome targeted
  - f. types of activity
  - g. a distinctive/innovative feature
  
- 2) A case report on each of the 16 institutions surveyed through applying a common analytical framework as provided in Appendix 1. This sets out how the practice at each institution is to be showcased, and contains:-
  - a. A summary of each outcome described
  - b. How the institution contributes towards the outcome
  - c. How well the desired outcome is being achieved
  - d. How its achievement is assessed by the institution and any observations on this by the international partner
  - e. Identifiable areas of good practice that are notable, and
  - f. Any other comments that appear relevant.

The Appendix also expands the detail of each desirable entrepreneurial outcome and how each may be recognised.

- 3) Supporting detail on each of the 16 institutions, which will include:-
  - a. Appropriate institutional contacts
  - b. Activities that exist within the institution to support entrepreneurship development for students, graduates, alumni and staff
  - c. The scale, scope and history of these activities and where located in the institution
  - d. How each of these activities contribute toward delivering against the outcomes in Appendix 1
  - e. An assessment of how well each outcome (not activity) is being met and how this assessment is made by the institution with comment by the international partner
  - f. Where appropriate, identifying institutional exemplary good practice against the outcomes and the rationale for the selection of this as an item to be showcased and disseminated at future UK events

### **Expression of Interest from Partners**

Expressions of interest should contain the following:-

- Name and legal status of organisation submitting the expression of interest
- Principal Investigator / Lead International Partner
- Identification of region/institutions to be investigated
- Contact Details
- Experience in carrying out similar projects with summary details of recent relevant projects completed.
- Confirmation of agreement to apply the outline methods and approaches proposed in the project documentation
- Indicative timescale, project start and end dates

**APPENDIX 1**

<b>Desired Outcomes Category</b>	<b>Analysis Frame</b>				
	<b>How is the institution contributing to this outcome?</b>	<b>How well is the desired outcome being achieved?</b>	<b>How is this assessed?</b>	<b>What are specific areas of good practice?</b>	<b>Additional comments</b>
<b>A. Entrepreneurial behaviours, attitudes and skills developed</b>					
<b>B. Empathy with the life-world of the entrepreneur</b>					
<b>C. Key entrepreneurial values inculcated</b>					
<b>D. Motivated toward an entrepreneurial career</b>					
<b>E. Understanding the processes of venture creation</b>					
<b>F. Generic entrepreneurship competencies developed</b>					
<b>G. Key minimum business how-to's acquired</b>					
<b>H. Effective management of stakeholder relationships</b>					

**To what degree does the institution have programmes/activities that seek clearly to develop:**

**A. Entrepreneurial behaviours, attitudes and skills developed**

- opportunity seeking
- initiative taking
- ownership of a development
- commitment to see things through
- personal locus of control (autonomy)
- intuitive decision making with limited information
- networking capacity
- strategic thinking
- negotiation capacity
- selling/persuasive capacity
- achievement orientation
- calculated risk taking

**B. Empathy with the life world of the entrepreneur**

- living with uncertainty and complexity
- having to do everything under pressure
- coping with loneliness
- holistic management
- no sell, no income
- no cash in hand – no income
- building know who and trust relationships
- learning by doing, copying, making things up, problem solving
- managing interdependencies
- working flexibly and long hours

**C. Key entrepreneurial values inculcated**

- strong sense of independence
- distrust of bureaucracy and its values
- self made/self belief
- strong sense of ownership
- belief that rewards come with own effort
- hard work brings its rewards
- believe can make things happen
- strong action orientation
- belief in informal arrangements
- strong belief in the value of know-who and trust
- strong belief in freedom to take action
- belief in the individual and community not the state

**D. Motivated toward an entrepreneurial career**

- understand the benefits
- can compare with employee career
- have some 'heroes' as friends acquaintances
- have images of entrepreneurial people 'just like them'

**E. Understanding of the processes of venture creation, entry and associated tasks**

- can go through the total process and know what challenges will arise at each stage
- know roughly how to handle them

**F. Generic entrepreneurship competencies developed**

- how to find an idea
- how to appraise an idea
- how to see problems as opportunities
- to identify the key people to be influenced in any development
- know how to build the know who
- know how to learn from relationships
- know how to assess business development needs
- know where to look for answers
- emotional self awareness, manage and read emotions and handle relationships
- to constantly see yourself and the business through the eyes of stakeholders and particularly customers

**G. Key minimum business how to's acquired**

- see products and services as combinations of benefits
- develop a total service package
- price a product service
- identify and approach good customers
- appraise and learn from competition
- monitor the environment with limited resource
- choose appropriate sales strategy and manage it
- identify the appropriate scale of a business to make a living
- set standards for operations performance and manage them
- finance the business appropriately from different sources
- develop a business plan as a relationship communication instrument
- acquire an appropriate systems to manage cash, payments, collections, profits and costs
- select a good accountant
- manage, with minimum fuss, statutory requirements

**H. Effective management of stakeholder relationships**

- understand the needs of all key stakeholders at the start –up and survival stage
- know how to educate stakeholders
- know how to learn from them
- know how best to build and manage the relationship.

## Appendix 2 – Clarification of terms of reference for work in South Africa

From: "Philip Ternouth" <philip.ternouth@cihe-uk.com>  
To: <Tony.Heher@afed.co.za>  
Cc: "Richard Brown" <richard.brown@cihe-uk.com>  
Subject: RE: Entrepreneurship project - progress report #2  
Date: Mon, 26 Jun 2006 12:00:02 +0100  
Organization: CIHE

Tony

Just catching up as we prepare for the final meeting of our steering group. I have attached 2 brief notes I took of the discussions at our last 2 steering group meetings. As I had intimated in my previous brief response the situation you described in your previous note is similar to the one we have identified in the UK – ie little formal process of objective setting in terms of the outcomes and assessment of the results. Also note the tension between entrepreneurial support and entrepreneurship in developing the courses and embedding / sustainability in the curriculum and underpinning the interventions with academic rigour. We will I suspect be left to draw conclusions in terms of what is likely to result in the desirable outcomes for which we are looking (rather than what does), the desirability for an outcomes framework as a generic – treating the template as WIP, and assessing the activity to date more as experimentation than rational design with a view to more formal adoption. So I suspect a report from you much in these terms will be as much as we can expect. These are my views of course and I'll wait until we see the final report before passing a more formal judgment.

Best wishes

Phil

---

**From:** Tony.Heher@afed.co.za [mailto:Tony.Heher@afed.co.za]  
**Sent:** 17 May 2006 13:53  
**To:** philip.ternouth@cihe-uk.com  
**Subject:** Entrepreneurship project - progress report #2

Phil

I visited a number of institutions in Gauteng and KwaZulu-Natal last week and a more complete picture is starting to immerge.

One aspect is of concern and I wanted to ask your view. None of the entities I have talked to so far have a formal process of assessment of the programmes that are in place. Responding to requirements 2c (*How well the desired outcome is being achieved*) and 2d (*How its achievement is assessed by the institution*) is therefore impossible based on any factual data. It is difficult to even make a qualitative assessment. Without this data assessment of good practice is also problematic as would be largely subjective. These difficulties make the whole analysis frame rather thin, with data (at best) available to complete 1 of 4 columns!

Given the wide diversity of programmes within an institution, it is also quite difficult to even evaluate the desired outcomes categories. Pretoria University, for example has 4 separate entrepreneurship programmes in Commerce, Engineering, Technology Management and BioSciences. What is one evaluating - the individual programmes or the

institution as a whole? Each programme is markedly different in scope and aim, so difficult to lump together, but evaluating as individual programmes seems to go against the overall concept. (A programme in one faculty/department reaching 30-40 students may be good, but if that is all, what does that say about the whole institution?)

So overall, with regard to the list of outputs requested in 3), 3a, 3b and 3c - the descriptive stuff - are OK, but 3d and 3e look impossible. This means that no recommendation in terms of 3f could be made with any confidence - hence nothing to showcase! The project for South Africa would therefore tend to be largely descriptive with little (if any) of the more formal evaluation that is called for in the TOR.

I am not sure if you actually expected much else from South Africa but thought I should advise this sooner rather than later so that if you want to refocus or redefine the work here at all there is still a chance to do so.

Regards

Tony

### Appendix 3 – Individuals and organisations interviewed

**Prof. GH Nieman** <[ghnieman@hakuna.up.ac.za](mailto:ghnieman@hakuna.up.ac.za)>

Head: Department of Business Management  
Room 3-45 (third floor)  
Economic and Management Sciences building  
University of Pretoria  
Lynnwood Road, Pretoria

**Prof JE Amadi-Echendu** <[joe.amadi-echendu@up.ac.za](mailto:joe.amadi-echendu@up.ac.za)>

Department of Engineering Management  
University of Pretoria  
012 420 5793 or 082 219 2268  
<http://www.up.ac.za/engmot/>

**Prof Karl Kunert** <[karl.kunert@fabi.up.ac.za](mailto:karl.kunert@fabi.up.ac.za)>

Professor of Botany  
Forestry and Agricultural Biotechnology Institute (FABI)  
University of Pretoria  
Tel: 27 12 420 3908 or 420 3909, Cell: 0833401029, Fax: 27 12 420 3960  
<http://fabinet.up.ac.za/molplantphys>  
<http://fabinet.up.ac.za/molplantphys/legimproject/website.html>

**Mr Jan Mentz** <[jmentz@postino.up.ac.za](mailto:jmentz@postino.up.ac.za)>

Contacts and Commercialisation  
Research Enterprises  
University of Pretoria  
Tel: 012 420 4960/4568, cell: 083 640 4923

**Dr Mike Herrington** <[mikeherr@gsb.uct.ac.za](mailto:mikeherr@gsb.uct.ac.za)>

Director, Centre for Innovation & Entrepreneurship  
Graduate School of Business  
University of Cape Town  
Tel: 406-1177, cell: 082 291 1365  
Rm: 2.01.09 W Breakwater Campus  
<http://www.gsb.uct.ac.za/gsbwebb/home.asp>

**Professor DJ (Kobus) Visser** <[kvisser@uwc.ac.za](mailto:kvisser@uwc.ac.za)>

Deputy Dean, Faculty of Economic and Management Sciences  
University of the Western Cape  
Private Bag X17, Belville 7535  
tel +27 21 9592620, fax +27 21 9593219  
<http://www.uwc.ac.za/ems/Man/>

**Mr Craig Wing** <[wingc@enterprise.wits.ac.za](mailto:wingc@enterprise.wits.ac.za)>

Innovation and Entrepreneur Consultant  
Wits Commercial Enterprise (Pty) Ltd  
University of the Witwatersrand  
Rm 5032, Senate House  
Jorissen Street, Braamfontein  
Tel: +27 11 7171024, Fax: +27 11 717 1065, cell: +27 82 888 1616  
<http://www.enterprise.wits.ac.za>

**Tracy Kirchhoffer** <[Kirchhoffert@enterprise.witsac.za](mailto:Kirchhoffert@enterprise.witsac.za)>

Innovation and Entrepreneurship  
Wits Commercial Enterprise (Pty) Ltd  
University of the Witwatersrand  
Senate House, Jorissen Street  
5th Floor, Room 5030  
Braamfontein, Johannesburg, 2050  
Tel +27 (0) 11 717 4587, Fax +27 (0) 11 717 1065, Cell +27 (0) 83 251 4990  
<http://www.enterprise.wits.ac.za>

**Prof T Auf der Heyde** <[tadh@twr.ac.za](mailto:tadh@twr.ac.za)>

Dean: Research  
Room 172, Admin Building  
Doornfontein Campus  
University of Johannesburg  
Tel +27 11 406 2508 or 8199, Fax +27 11 406 2507, Cell: 082 335 5847  
[www.uj.ac.za](http://www.uj.ac.za)

**Mr Piers Steenekamp** <[piers@twr.ac.za](mailto:piers@twr.ac.za)>

BusiTech, Codak Building, Sherwell St  
Doornfontein campus  
University of Johannesburg  
Cell: 083 397 9577

**Dr T Malome Khomo** <[Khomot@ukzn.ac.za](mailto:Khomot@ukzn.ac.za)>

Director, Centre for Entrepreneurship  
J Block, Room J-01, Graduate School of Business,  
Westville Campus, University of KwaZulu-Natal  
Tel: 260 1408/1479 cell: 083 555 7794  
<http://www.ukzn.ac.za/cfe/index.html>

**Professor Shahida Cassim** <[cassim@ukzn.ac.za](mailto:cassim@ukzn.ac.za)>

Associate Professor, School of Management  
Howard College Campus, University of KwaZulu Natal  
Tel: 27 31 260 2550/2593, Cell: 083 786 1097, Fax: 27 31 260 2169

**Prof JP Grundling** <[GrundlingJP@tut.ac.za](mailto:GrundlingJP@tut.ac.za)>

Head: Centre for Entrepreneurship  
Tshwane University of Technology  
(T) +27 12 382 4492 or 5583, (F) +27 12 382 5978

**Prof Jonathan S Youngelson** <[youngelsons@tut.ac.za](mailto:youngelsons@tut.ac.za)>

UNESCO Chair of Technological Entrepreneurship  
Tshwane University of Technology  
Private Bag X800, Pretoria  
Tel: +27 12 318 5789, Fax: +27 12 318 5325, Cell: 082 921 5693

**Adolph Neethling** <[acn@sun.ac.za](mailto:acn@sun.ac.za)>

Department of Business Management  
University of Stellenbosch  
Tel: 021-8083678, Cell: 0822022626

**Ms Nomonde Mbadi** <[mbadinom@dit.ac.za](mailto:mbadinom@dit.ac.za)>

Director Public Affairs

National Co-Ordinator: Tabeisa Enterprise Centres

Durban University of Technology

P O Box 1334, Durban, 4000

Tel: +27 (0) 31 204 2106 / 308 6814

Fax: +27 (0) 31 201 2475 / 308 6788

Web site: <http://www.dit.ac.za>

**Prof Van Aardt Smit** <[Smitava.EKW@mail.uovs.ac.za](mailto:Smitava.EKW@mail.uovs.ac.za)>

Department of Management

University of the Free State

051 -401285 or 0823701269

**Piyushi Kotecha** <[piyushi@hefutures.net](mailto:piyushi@hefutures.net)>

CEO, Southern African Regional University Association

Johannesburg

cell 082 8012 742

**Patrick Fish** <[patrick@hesa.org.za](mailto:patrick@hesa.org.za)>

Projects Manager

Higher Education South Africa

P O Box 27392

Sunnyside 0132

Tel: +27(0)12 481 2861, Fax: +27(0)12 481 2843

**Philip Marais** <[philip@heirheads.co.za](mailto:philip@heirheads.co.za)>

Heirheads Entrepreneurial Services CC

(was with HBD Venture Capital)

15 Zandberg Street, Somerset West, 7130

Tel: 083 286 7376, Fax: 0866847408

**Mrs M.C. Keeton** <[MKeeton@tsi.org.za](mailto:MKeeton@tsi.org.za)>

Chief Executive Officer

Tshikululu Social Investments

12<sup>th</sup> Floor, Edura House, 41 Fox St, Johannesburg

Tel : 011 377-7300, Fax: 011 834-1492

**Doug Greenshields** <[DGreens@tsi.org.za](mailto:DGreens@tsi.org.za)>

Deputy CEO

Tshikululu Social Investments

12<sup>th</sup> Floor, Edura House, 41 Fox St, Johannesburg

Tel : 011 377-7300, Fax: 011 834-1492

**Appendix 4****Honours Biotech Course 2005****Biotechnology in the Workplace/ Draft Outline**Course purpose

The purpose of the course is to provide an understanding of contemporary biology and biotechnology as a basis for successfully launching new high-tech ventures. In addition to advanced training in the fundamentals of biotechnology, the courses will track the relationship between the academic innovation and its application, with an emphasis on the blurring of the distinction between academic and industrial research. The interplay and competition between academic (government-funded) and industrial science will be examined.

**Course description**

The course will cover one semester in the second semester of the Honours Program. It is intended to connect the students with the business executives, leaders, experts and venture capitalists that are crucial for success in start-up and growing ventures.

The course will have two components:

- (1) A lecture component covering 14 semester hours, with one lecture per week.
- (2) A practical component that will involve interactions with the commercial biotechnology community, covering 2 hours on alternate weeks.

1. Lecture component

The topics that could be included:

Technologies

- Scope of Biotechnology (worldwide and Africa)
- Current DNA sequencing technologies - theory, practice, instrumentation, limitations
- High throughput methods, including automation and robotics
- Nucleic acid microarrays, protein microarrays, protein-protein interaction studies, protein-ligand interactions, antibodies.
- Proteomics; various forms of mass spectrometry; Computer-aided design of both large and small molecules
- Whole genomes: - for every biological process in humans, mice, flies, Arabidopsis, yeast and some other fungi, many microbes - we now know the sequence (in principle) of every gene controlling every process. Most of the recent developments and enterprises have been based either on applications of this kind of information or the development or refinement of appropriate enabling technologies (sequencing machines, microarray synthesizers and printers, Mass Spectrometers, MALDI-TOF, etc)

- Biotech medicine asks, "How can we use this information to derive therapeutic proteins, develop better diagnostic tools, provide more specific cures for disease etc?"
- Biotech agriculture asks similar questions about the quality, safety, production efficiency etc of our food supply.
- Industrial bio-production - cells, proteins, antibiotics etc.
- Transgenics - cell, tissues, plants, animals.
- Data management, data analysis, data mining.

### Business aspects

- Patents: what has worked in the past (Chakrabarty, Stanford Cloning, PCR, the Harvard Mouse, Recombinant Enzymes, Sequencing and Microarray Technologies but also examples from South Africa)?
- The changing face of biological patents - shifts at the Patent Office.
- Marketing and sales of biological products in Africa
- Budgeting
- Regulatory Issues including mandatory biosafety and voluntary bioethical issues
- Company formation considerations
  - Funding issues
  - Legal issues in establishing a company and licensing technology

### 2. Practical component

This will involve the visit to, or a visit from, individuals involved in the commercial biotechnology sector.

Examples of such interactions include:

- a. Sequencing Companies e.g. Inqaba
- b. Technology Incubators e.g. eGoliBio
- c. Government Sponsored R&D Operations e.g. CSIR, ARC
- d. Plant Tissue Companies e.g. Highveld Biological
- e. Vaccine production development and facilities

## **Grading**

There will not be a formal final exam. The grade will be assigned on a project paper written in response to a question of how to develop a company (with a supplied example), the issues involved, possible solutions and the variety of expertise necessary to move the company forward. Actual companies will be invited to participate and set students actual practical problems that they face.

**Appendix 5**  
**University of the Western Cape**  
**Department of Management**  
**Entrepreneurship Management Stream**  
**Programmes and Modules<sup>4</sup>**

Students at the 2nd year level attend Entrepreneurship classes for four terms of 7 contact weeks each for the academic calendar year, beginning in early February and ending early in December.

Student micro-enterprise businesses are located on the UWC campus, serving mostly UWC students and staff. By the end of Term 2, microenterprise teams are ready for initial funding and start-up and the businesses are fully functional and operating at the start of Term 3 and for the duration of Term 4.

In the four sequential terms, classes begin with an introduction to *Entrepreneurship* and by acquainting the students with the concept of entrepreneurship as a career choice. In addition, the students are familiarised with the structure and cross-functional business concepts of the formal business plan, and choose small businesses to study and write on for individual business plans. Classes consist of lectures and frequent class discussions to reinforce course concepts through use of examples that the students are familiar with from their own experience. The module focuses on the practicalities of starting and operating a small firm in the local context. Students are required to interview, interact and present a report on a successful entrepreneur and to reflect on the lessons they have learned from this encounter. A major focus of the first-half of the module is for students to develop a business plan for the micro-enterprise, which they will establish during the Term 2 and continue to operate until Term 4.

In Term 2, students prepare for intensive group involvement in microenterprise teams. Each team produces a charter, a contract of expectations li,r team performance and a consensus-driven peer evaluation instrument to rate individual contributions towards achievement of the team's goals. In addition, students study survey techniques and the customer-orientation necessary for successful businesses. The micro-enterprise teams design questionnaires and survey several hundred prospective customers (i.e. the wider campus community) to ascertain their preferences for small businesses the students might develop. Micro-enterprise teams determine which business ideas they want to pursue, and they begin to plan and move toward implementation of their plans and realisation of their businesses. With loan funding (to a maximum of R1,000) provided by the Department of Management, as well as their own capital contributions and sponsorships, microenterprise teams can receive and raise venture capital of up to R3,000 (equivalent to approximately US\$500).

The focus of Term 3 is on the practical establishment and operation of a new business by students working in small teams. Students are introduced to and defined the factors of success and begin to set goals for their enterprises. Students meet in tutorial sessions with the instructor to reflect on, and collectively address the

---

<sup>4</sup> Extract from “Building Human Capital in Difficult Environments: An Empirical Study of Entrepreneurship Education, Self-Esteem, and Achievement in South Africa”, Christian Friedrich and Kobus Visser. In *Developmental Entrepreneurship: Adversity, Risk, and Isolation*, International Research in the Business Disciplines, Volume 5, 355-378, 2006 Elsevier Ltd

problems that arise in establishing and initially operating their businesses. During the module students continue to operate the micro-enterprise that they established at the beginning of the term. The initial focus of the module is to help ensure that the start-ups survive and thrive so that the students are able to learn valuable practical lessons from continued operations. Additionally, they learn about success factors. Students use their own experience of operating a micro-enterprise as the basis for studying the challenges of acquiring, franchising and operating various kinds of more formal small businesses. The material is sequenced in a similar way to the events likely to be encountered when starting or buying a small business and provides the building block of the 3rd year programme.

During Term 4 the micro-enterprise teams continue with their enterprises on campus. Typically, this is a period when complacency sets in, individuals lose interest and the enterprises may suffer as a result of a lack of commitment. During this period a sustained effort is made by the faculty to maintain the impetus of the enterprises and to assist in resolving matters that threaten group dynamics, group performance and group cohesion. In order to address these potential threats, senior students act as business mentors to guide and assist the micro-enterprise teams in matters relating to group performance.

Table 2 presents a summary of the components constituting the full module, which consists of curriculum content, practical work and academic compliance requirements for the four terms.

The academic module sets aside 4 hours of lecturer contact time per week. Once the enterprises operate on campus, members of the respective microenterprise teams attend lectures on a rotational basis.

For Terms 3 and 4 one lecture-hour per week is forfeited to enable the enterprise teams to work in the businesses. Regular class attendance is made compulsory by means of unannounced class tests, attendance records and group tutorials all of which generate marks towards a final term mark. Full academic compliance is maintained during all terms by means of credit bearing activities as identified in Table 1.

### **Evaluation Components**

Typically, the final term mark in institutions of higher education in a South African context consists of a composite of work based on the model of continuous evaluation. This method of evaluation consists of components such as: case studies, assignments, weekly journals, entrepreneur interview and assessment of relevant articles, tutorials, peer evaluation, term test and an examination.

### **Teaching Method**

During Term 1 of the module, the preferred method of knowledge transfer is by means of classroom-based lectures, controlled interaction with entrepreneurs and group work. From Term 2 until the completion of the module, a radical change in knowledge transfer takes place when action learning takes precedence as the dominant learning method; in this regard, students learn by- doing and learn-by-taking responsibility for their decisions. Action training in entrepreneurship has proved to be a successful training method and training intervention.

In terms of the proposed enterprises on campus, students are required to form their own groups and establish working, financial and administrative relationships. Experience from previous groups showed that groups that do not formalise these relationships contractually, tend to fail at the first onset of conflict.

In order to assist the enterprise groups after formation, two student assistants (senior students) are appointed to act as a "sounding board" for the indifferences arising within a group context, as well as to act as intermediaries between the groups and the lecturers.

### **Entrepreneurship Module Growth**

When this module was first introduced in 2001, only 19 students registered for the module with four enterprises started on campus. Subsequently, as the success and popularity of the module grew and the awareness had been created, the number of students quadrupled over a period of four years from 19 in 2001, to 32 students in 2002, to 51 students in 2003 to 85 students in 2004.

The increasing number of female students registering for this module is certainly of interest; for example, the female representation grew from 8 in 2001 to 14 in 2002 to 25 in 2003 to 45 in 2004. This growth in female participation is in line with international trends that entrepreneurship is increasingly considered as a career choice by women.

**Table 1: Curriculum, Practical Work and Academic Requirements**

Curriculum Content	Practical Work	Academic Compliance
<p><b>Term 1</b> MAN201: Starting a business (theory)</p> <ol style="list-style-type: none"> <li>1. Entrepreneurship as a career choice</li> <li>2. Environmental analysis</li> <li>3. Learning about entrepreneurs: Traits and behaviours</li> <li>4. New venture opportunities</li> <li>5. Business planning: Marketing, industry, competition</li> <li>6. Presentation skills</li> <li>7. Interviewing an entrepreneur</li> <li>8. Fit and feasibility of new venture ideas</li> </ol>	<p>Marketing survey on campus</p>	<ol style="list-style-type: none"> <li>1. Weekly journals</li> <li>2. Idea generation</li> <li>3. Interview an entrepreneur</li> <li>4. Marketing research</li> <li>5. Term test</li> <li>6. Examination</li> </ol>
<p><b>Term 2</b> MAN202: Starting a business (practice)</p> <ol style="list-style-type: none"> <li>1. Group building exercise, group dynamics, idea generator</li> <li>2. How to develop a business plan, market need, customers</li> <li>3. Competitors, situation analysis</li> <li>4. Positioning. promotion, location, distribution</li> <li>5. Start-up plan/costs, operational plan</li> <li>6. Financial management, cash flow, profitability, Finance required</li> <li>7. Presentation of business plans</li> </ol>	<p>On-campus presentation by entrepreneurs</p> <p>Forming a stable work group</p> <p>Funding a successful enterprise</p>	<ol style="list-style-type: none"> <li>1. Weekly journals</li> <li>2. Student peer evaluation</li> <li>3. Business plan</li> <li>4. Assignment</li> </ol>
<p><b>Term 3</b> MAN203: Operating the small business</p> <ol style="list-style-type: none"> <li>1. Reviewing business plans of MAN 202. Start up of own business on the campus</li> <li>2. Introduction into success factors of SMEs, goal setting for own business</li> <li>3. Planning strategies</li> <li>4. Innovation</li> <li>5. Personal initiative</li> <li>6. Presentation of results of own</li> </ol>	<p>Work in enterprise</p> <p>Funding the enterprise</p>	<ol style="list-style-type: none"> <li>1. Weekly journals</li> <li>2. Student peer evaluation</li> <li>3. Group report/ enterprise progress report</li> </ol>
<p><b>Term 4</b> MAN204: Harvesting the enterprise</p> <ol style="list-style-type: none"> <li>1. Micro-enterprise operation</li> <li>2. Exit strategies and issues</li> <li>3. Business valuation</li> <li>4. Harvesting and liquidation issues</li> <li>5. Shutting down the micro-enterprise</li> <li>6. Entrepreneurial life strategies</li> <li>7. Journaling and peer evaluation</li> <li>8. Micro-enterprise and programme reflection and assessment</li> </ol>	<p>Work in enterprise</p>	<ol style="list-style-type: none"> <li>1. Bi-weekly journals</li> <li>2. Student peer evaluation</li> <li>3. Four case studies</li> <li>4. Group final report</li> <li>5. Term test</li> <li>6. Examination</li> </ol>



**Extract from the December 2005  
annual report of**

**The UCT Centre for  
Innovation and Entrepreneurship**

**Detailing the outreach programmes and short courses**

The Graduate School of Business, University of Cape Town, Breakwater Campus, Portswood Road, Green Point 8001  
Private Bag, Rondebosch, 7701  
(t) +27 21 406 1177, (f) +27 21 406 1456, Cell: 082 2911 365 (e) [mikeherr@gsb.uct.ac.za](mailto:mikeherr@gsb.uct.ac.za),

#### 2.1.4 Outreach Programme and Short Courses

Outreach programmes have continued with other Business Schools as well short programmes within the Graduate School of Business:-

- University of Stellenbosch: Lectures on the 2004 GEM report were given to MBA students
- Jiao Tong Business School: Two 4 days programmes on Entrepreneurship and Leadership were held in Shanghai and Beijing for Executive MBA delegates gathered from all over China as well as other Asian Countries.
- Graduate School of Business: Short courses conducted included:-
  - Anglo Gold Ashanti: 3 modular programmes with lower (IMDP) and middle management (MDP) from Anglo Gold Ashanti on project planning and procedures revolving around cost saving initiatives.
  - Post-graduate Retail Management Diploma: 3 modular programmes with middle and senior management from Woolworths and Old Mutual on Business Planning. Woolworths delegates presented to senior management in their organisation.
  - Khula Enterprise Finance: a number of short programme courses were given to delegates from Khula Enterprise Finance on Business Planning in the East London and Umtata areas. These programmes are of particular importance as Khula is charged with assisting SMME entrepreneurs in South Africa develop Business Plans, assisting with obtaining funding and providing post-loan monitoring and mentorship.
  - NamWater Board: 3 modular programmes with senior management from NamWater, Namibia on project planning and procedures revolving around cost saving initiatives.
  - CSC PGDM Diploma Course: a one day course on Entrepreneurship was given to middle management of CSC covering small business and Corporate Entrepreneurship.

#### 2.2.3 South African Bank Council

The CIE collaborated with Genesis Analytics, Enterplan and Sofatel to look at and design risk-mitigation and risk-sharing mechanisms for SME financing in South Africa. This report was completed at the end of November 2005 and presented to the Banking Council.

#### 2.2.4 South African Breweries

A detailed research report on financial support services offered to SMEs in South Africa was completed and submitted to the Enterprise Development Unit of the South African Breweries. The report was commissioned to help them with the re-formulating their KickStart programme.

## 2.3 Business Creation and Support

Central to the activities of the CIE and closely linked to both teaching and research, are the various business development and support programmes which include:-

- the Small Business Development (SBD) programme
- the Raymond Ackerman Academy for Entrepreneurial Development, and
- the International Finance Corporation (IFC) Social Enterprise unit

### 2.3.1 The Small Business Development Programme

This programme was started in April 2001 through funding from various private individuals, organisations and the Department of Economic Development and Tourism, Western Cape Provincial Administration. It was set-up as a pilot study to assist SMME entrepreneurs from previously disadvantaged communities in the Western Cape.

Its mandate is to provide financial assistance in the form of loan financing to entrepreneurs who otherwise would not be eligible for assistance from conventional lending Institutions. In addition to finance, the SBD unit provides free mentoring given by experienced entrepreneurs and runs short 4 day (not consecutive) courses designed to move the entrepreneurs towards self-reliance. A schedule of courses held and still to be held is given below;-

Table 2: 4 day SBD Training Courses

Acc I	Acc II	Marketing	Operations
13 September 2004	4 October 2004	11 October 2004	25 October 2004
9 November 2004	22 November 2004	17 January 2005	31 January 2005
14 February 2005	28 February 2005	14 March 2005	4 April 2005
11 April 2005	25 April 2005	9 May 2005	23 May 2005
13 June 2005	27 June 2005	11 July 2005	25 July 2005
5 September 2005	19 September 2005	4 October 2005	17 October 2005
8 November 2005	22 November 2005	28 November 2005	5 December 2005
13 February 2006	27 February 2006	14 March 2006	27 March 2006

A programme also exists to help young entrepreneurs between the ages of 18 and 34 years to start their own businesses. This initiative is funded by grants received from the Swiss South African Co-operation Initiative (SSACI).

#### **SBD Workshop:**

On Wednesday 18<sup>th</sup> May 2005, a workshop was held at the Graduate School of Business to showcase the SBD unit and its interactions with the

Raymond Ackerman Academy for Entrepreneurial Development. The purpose was to celebrate young entrepreneurs and to enlighten sponsors and outside interested parties on the activities of the CIE. A short video, produced by Liberty Life, was shown highlighting some of the entrepreneurs and telling their stories. A newsletter (Appendix 2) was given to attendees and keynote addresses given by Mr Raymond Ackerman, Chairman and founder of Pick 'n Pay and Mohale Ralebitso, Marketing Director of Liberty Life.

**Liberty Life/Graduate School of Business Entrepreneur of the Year:**

Each year, starting in September, the CIE in conjunction with the Argus Newspaper and Liberty Life initiate a programme to find the SME “Entrepreneur of the Year” in the Western Cape. From all the applications, 12 entrepreneurs are selected and a profile of them published in the Money Section of the Argus. Five finalist entrepreneurs and their partners are then invited to attend a Gala “City of Angels” dinner which was held at the Mount Nelson hotel on 17<sup>th</sup> November with Trevor Manuel (Minister of Finance) as the keynote speaker.

The winner (Teddy Naidoo of Delightful Smoked Products received a cash prize of R20 000) and the runner-up (Jeannie Fletcher of Yamme Wines as prize of R5 000).

Details of the 12 entrepreneurs and the Gala Dinner are given in the media Appendix 1 at the end of the report.

2.3.3 The IFC Social Enterprise Unit

The unit was established in July from two grants received from the Grassroots Business Initiative of the IFC. The objective of the unit is to pilot a study to:-

- provide mentoring and business advice to socially-orientated organisations in the Western Cape where profit motive is secondary to assisting disadvantaged communities.
- provide both grant and loan funding where deemed appropriate

At present the CIE is working with three organisations:

- Streetwires
- Freecom
- The African Art Factory

At least four other organisations will join the initiative by the end of March 2006.

In addition to the pilot study, the CIE was asked to identify Institutions in other Provinces of South Africa and in other African countries who may be able to link up with the IFC and replicate the model being developed at the Business School.

On Friday 18<sup>th</sup> November a workshop was held with the Dean of the Faculty of Business and Economic Sciences and colleagues at the Nelson Mandela Metropolitan University in Port Elizabeth with the view to replicating the model in the Eastern Cape. Key personnel at the IFC have been put in touch with the Dean. Developments will be monitored.

## 2.4 Other Activities

### 2.4.1 Standard Bank Immersion Programme

Standard Bank have for the last 2 years been engaged in a programme to expose employees in their Customer Services and Credit Departments to the SMME business sector, particularly in so called “black” areas. It is designed to give employees a better understanding of this market which the banks are now required to service in terms of the Banking Charter. The CIE was involved in presenting the findings of the GEM 2004 and facilitating feedback sessions in:-

- Pretoria: Thursday, 10<sup>th</sup> March
- Cape Town: Tuesday, 15<sup>th</sup> March
- Durban: Thursday, 17<sup>th</sup> March

### 2.4.2 Inyathelo Programme

A day programme on Entrepreneurship and Leadership was conducted for Travel Agents at the Inyathelo Institute on Tuesday 3<sup>rd</sup> May.

### 2.4.3 The Ernst & Young / CIE Workshops

Ernst & Young, in collaboration with the CIE, is conducting a series of workshops at the GSB with academics, alumni of the School and business executives on a series of topical subjects.

### 2.4.4 Allan Gray Bootcamp

The Allan Gray Foundation, part of a broad-based Black Economic Empowerment initiative from Allan Gray Limited, approached the CIE during the early part of 2005 to assist in the development and rollout of an entrepreneurship program aimed at high-level school leavers who required financial assistance with their commerce studies.

The CIE assisted with the concept development and implementation of a four Entrepreneurship Boot Camp held at the GSB which acted as the final selection phase of the Allan Gray Foundation Entrepreneurship Program. The camp saw 44 scholars and 1<sup>st</sup> year university grades participate in an intensive entrepreneurship immersion experience at the Business School. All aspect of the camp from logistics to course delivery where managed by the CIE. 18 Participants were selected to participate in the program from 2006; 9 at UCT and 9 at Wits.

The CIE is now assisting with development of the second phase entrepreneurship curriculum which will begin in February 2006.

# DEPARTMENT OF BUSINESS MANAGEMENT

Your passport to management training & education



CONTINUING EDUCATION  
UNIVERSITY OF PRETORIA

# ENTREPRENEURSHIP

## Executive entrepreneurship programme

The delegates are introduced to entrepreneurship in established corporations. Entrepreneurial strategy formulation, creating an entrepreneurial culture as well as the entrepreneurial management of the corporation is covered.

After completion of the programme the delegate should be able to formulate and implement corporate entrepreneurial strategies, management of the corporate venturing process, take responsibility for entrepreneurial human resources management and take responsibility for corporate entrepreneurial growth.

This programme is aimed at top executives.

**Admission requirements:** Honours degree

- Module 1: Introduction to Corporate Entrepreneurial Strategy and Culture
- Module 2: Formulation and Implementation of Corporate Entrepreneurial Strategy
- Module 3: Corporate Venturing and innovation management
- Module 4: Entrepreneurial Functional Management and Growth
- Module 5: Study tour - Visit 5 most Entrepreneurial companies on USA East Coast

To achieve success at this level, candidates should submit and pass a number of individual assignments. Lectures will be conducted by the best international lecturers.

**Enquiries:** Prof Jurie van Vuuren Tel: +27 (12) 420-3401 or e-mail [jvuuren@hakuna.up.ac.za](mailto:jvuuren@hakuna.up.ac.za)

## Certificate in Entrepreneurship & Small Business Management

This 5 day course provides delegates with the skills required to start a venture. Specific skills covered include motivation, creativity, opportunity identification, and risk-taking. Role models (case studies) are discussed. Marketing, financial and human resource management skills are also covered. The delegate develops and writes his/her own business plan as the course progresses.

Upon completion of the course the delegate should be able to think creatively and innovatively.

**Admission requirements:** Grade 12/matric certificate and one year working experience.

To achieve success at this level, candidates should submit and pass individual assignments.

**Enquiries:** Prof Jurie van Vuuren Tel: +27 (12) 420-3401 or e-mail [jvuuren@hakuna.up.ac.za](mailto:jvuuren@hakuna.up.ac.za)



## Advanced certificate programme in entrepreneurship (abacus)

This 10 day course provides delegates with the required skills to successfully start their own ventures. It imparts the motivational, entrepreneurial and business skills needed to enable delegates to approach financial institutions with a well-designed business plan.

The delegate should be able to: -think in an entrepreneurial, creative and innovative way; -identify opportunities and design a business plan; -acquire performance motivation skills and be capable in financial, marketing, human resource and strategic management.

**Admission requirements:** Grade 12/matric certificate and 2-3 year's working experience.



**CONTINUING EDUCATION**  
**UNIVERSITY OF PRETORIA**

## Advanced certificate programme in entrepreneurship (abacus)

(Continued)

The course covers: - Entrepreneurial behaviour, creativity and innovation - Identification of opportunities - Performance motivation (Nach) - Business plans - Marketing, financial, personnel and strategic management.

To achieve success at this level, candidates should submit and pass individual assignments.

**Enquiries:** Prof Jurie van Vuuren Tel: +27 (12) 420-3401 or e-mail [jvuuren@hakuna.up.ac.za](mailto:jvuuren@hakuna.up.ac.za)

## Advanced programme in entrepreneurship

This one year programme includes the subjects Introduction to Entrepreneurship, Creativity & innovation, Entrepreneurship Development, Advanced Entrepreneurship, Corporate Entrepreneurship and Growth, failure and turnaround.

Employees in financial institutions, participants in the enabling environment, government officials and prospective entrepreneurs are all welcome to attend.

**Admission requirements:** B degree or 3 years working experience.

- Module 1: Introduction to entrepreneurship
- Module 2: Corporate entrepreneurship
- Module 3: Creativity and innovation
- Module 4: Entrepreneurship development
- Module 5: Growth, failure and turnaround
- Module 6: Advanced entrepreneurship

To achieve success at this level, candidates should submit and pass a written examination.

**Enquiries:** Prof Jurie van Vuuren Tel: +27 (12) 420-3401 or e-mail [jvuuren@hakuna.up.ac.za](mailto:jvuuren@hakuna.up.ac.za)

## Corporate entrepreneurship development programme

This course improves the entrepreneurial capacity of middle managers and provides them with a competitive advantage in their business environment. The course covers aspects such as creativity, innovation, opportunity finding, human resources management, financial and marketing management, and strategic entrepreneurial growth.

Upon completion of the course delegates should be able to: - Initiate new ventures inside the organisation; - manage such new ventures; - contribute to the growth of the organisation; - increase the competitiveness and profitability of the organisation; - create an entrepreneurial vision and strategy.

**Admission requirements:** B degree or 3 years management experience.

To achieve success at this level, candidates should submit and pass individual assignments.

**Enquiries:** Prof Jurie van Vuuren Tel: +27 (12) 420-3401 or e-mail [jvuuren@hakuna.up.ac.za](mailto:jvuuren@hakuna.up.ac.za)

## Women entrepreneurship programme

The Women Entrepreneurship Programme will show women that they can conduct business on their own and become financially independent. The programme is intended for women who want to own their own businesses as well as those who already started their own businesses and want to improve their entrepreneurial skills. It is also intended for women who are in business already and need to improve their management skills. The programme runs over six days in total, with one week break between days four and five in order for delegates to compile their business plans.

After the completion of this course, candidates should: - be able to start their own business, - be able to grow their own business, - be able to develop new products or services, - be able to incorporate the sustainable competitive advantage developed during the course, - be able to use the business plan that they prepared to obtain financial assistance, - be able to compile and interpret their own financial statements, - be able to improve the general management and marketing skills.

## Women entrepreneurship programme (Continued)

**Admission requirements:** Grade 12/matric certificate.

To achieve success at this level, candidates should submit and pass a business plan.

**Enquiries:** Mrs. Melodi Botha Tel: +27 (12) 420-4774 or e-mail [melodi@postino.up.ac.za](mailto:melodi@postino.up.ac.za)

## Corporate venturing

Delegates are introduced to the Corporate Venturing process, resulting in new venture plans. These plans serve as a basis for new venture creation and consequently in corporate entrepreneurship in an established firm.

After completion of the programme the delegates should be able to design and write new venture plans, implement new venture plans and apply new venture management functions.

**Admission requirements:** Grade 12/matric certificate.

- Module 1: Creativity and opportunity identification
- Module 2: Corporate venturing
- Module 3: Corporate entrepreneurial marketing, finance and human resources management

To achieve success at this level, candidates should submit and pass individual assignments.

**Enquiries:** Prof Jurie van Vuuren Tel: +27 (12) 420-3401 or e-mail [jvuuren@hakuna.up.ac.za](mailto:jvuuren@hakuna.up.ac.za)

## Teaching entrepreneurial skills development programme

This comprehensive three day course is an introduction to entrepreneurship and business skills in order to develop entrepreneurial orientation amongst course participants in order to transfer entrepreneurial orientation and business skills to learners.

All educators, trainers and small business owners should attend.

After completion of the course delegates should be able to understand the process of entrepreneurship, stimulate development of entrepreneurial orientation, teach for the development of entrepreneurial orientation, develop sensitivity to integrate entrepreneurial orientation in all activities, understand basic business principles and skills by educators and be able to develop activities in support of entrepreneurship and EO.

**Admission requirements:** Grade 12/matric certificate - Involvement in entrepreneurial and business education as well as people wanting to start own businesses.

To achieve success at this level, candidates should submit and pass an individual assignment.

**Enquiries:** Dr. Ingrid le Roux Tel: +27 (12) 420-4773 or e-mail [ingrid.leroux@up.ac.za](mailto:ingrid.leroux@up.ac.za)

## Other short courses available on request

- Short course in Franchising
- Short course in Business Planning
- Short course in Business Plan Compilation
- Short course in Strategic Management



**CONTINUING EDUCATION  
UNIVERSITY OF PRETORIA**