Technikons in South Africa

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Computer education at Technikons in South Africa has many similarities to computer education at Polytechnics in New Zealand. The poster will investigate the similarities in the courses and the institutions and highlight some differences. Technikon Pretoria will be used as an example of specific courses, organizational set-up, staff- and other issues. Technikon Pretoria is one of 15 technikons in South Africa. This institution is the largest in South Africa with 34 000 registered students of which about 20 000 is full-time students. The main campus is in Pretoria. The Department of Computer Technology forms part of the Faculty of Information - with 9 other departments for example Library Studies, Journalism and Languages. The Department of Computer Technology is divided into 5 sections:

- The Information Technology Section offers the 3 Year National Diploma in Information Technology. This qualification is similar to the 3-year degrees offered by Polytechnics. Twelve lecturers teach on this qualification and 800 students are currently registered for this 3-year qualification.

- The Computer Science Section offers an engineering qualification that covers hardware and software issues. Eight lecturers teach on this qualification and there are 250 registered students for this qualification. An Internet, distance learning Web-master course has also been developed.

- The Research Section in responsible for the fourth-year BTech students (40) and Master-and-PhD students. All research in the department is also managed through this section. A number of research projects are running in the department. This section also identifies opportunities for delivering international papers and international travel.

- All students on campus have a computer subject as part of their course. The Service Section teaches these subjects. In the region of 6000 students take these subjects.

- The department has a fifth non-student-focused section. This section is responsible for all negotiations with companies for sponsorships and providing projects for final year students and inter-institutional co-operation agreements (often international). Contracts have been signed with companies like SAP SA who provided the department with free training and SAP software, IBM who has sent 3 lecturers to Chicago for mainframe training (6 weeks per year for 3 years), ORACLE who has sponsored servers and software, BORLAND who provided DELPHI software and many more. International co-operation agreements have been signed with tertiary institutions in England, America, Australia and a few in Europe.

Students initially register for the BTech qualification, which is a 4-year qualification, but has exit levels after year one, two and three. Most students leave after year 3 with a National Diploma in Information Technology and then return for the fourth year BTech on a part time basis. Three year ago extensive research was done into what should be included in the National Diploma in Information Technology. A large number of businesses were approached and interviewed, as well as international qualifications investigated. The result was a generic first year for all students studying the NDipl Information Technology. Specialization starts in the second year. Seven different areas of specialization were identified. These include areas like business programming, technical programming, system development and database specialists.

Technikons have a yearly conference similar to the NACCQ conference and belong to TECLA, which has a central committee initiating changes to existing qualifications. Inter-Technikon communication, on lecturer level, is very good and the different regions also have annual meetings. The conference focus is on new initiatives and changes needed in the qualifications. Technikon training is currently very successful and a number of co-operation agreements have been signed with universities.