

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Research method**

Information (data) collected for the purpose of critical assessment of postgraduate real estate education in South Africa was divided into two main groups which are: postgraduate real estate curricula and property industry requirements. To obtain the data two main surveys were undertaken: the postgraduate real estate curriculum survey and the property industry survey.

#### **3.2 Postgraduate real estate curriculum survey**

Two main methods were used to collect curriculum information. These methods are internet research on postgraduate real estate curricula and use of relevant real estate education publications. In total, 73 Masters Real Estate programmes in the world were identified in the survey. Not all the programmes were selected for assessment purposes in this research. Only 30 programmes, which include 5 from South Africa, were finally selected. Final curriculum selection was restricted to comprehensive Masters Real Estate programmes offered in English and by coursework, whose curriculum details were accessible. Detailed analysis of the selected curricula is covered in Chapter 4 (Curriculum Survey).

##### **3.2.1 Internet research on postgraduate real estate curricula**

Internet research was undertaken to identify relevant Masters Real Estate degree curricula in different continents of the world to be compared with the South African curricula. To identify the real estate programmes, many websites for different institutions and universities in the world were searched. In addition to internet research, other relevant Masters Real Estate degree programmes were identified by personal contact using e-mail, direct mail and telephone with the academic experts and their supportive staff at different universities.

##### **3.2.2 Relevant real estate education publications**

Most relevant real estate education publications that were used to search postgraduate real estate curricula in the world which were used in this research include: Urban Land Institute Directory of Real Estate Development and Related Education Programs (10<sup>th</sup> edition); RICS Prospectus for Surveying Education 2004 / 05; the monograph “Real Estate Education throughout the World: Past, Present and Future” edited by Schulte (2002); “Real Estate Education in Europe”, a report for the Urban Land Institute by Baum and Lizieri (2002); and university handbooks and study guides.

Justification for the comparison of postgraduate real estate curricula in South Africa with similar curricula internationally was based on the fact that, with few exceptions, no systematic scientific survey was conducted to compare the courses with each other or equivalent courses internationally (Cloete, 2002). Such a comparison was a relevant component of critical assessment of the courses particularly due to the gaining importance of internationalisation of real estate education and transactions in the global context, and the desire of universities offering real estate programmes to meet accreditation requirements of professional bodies more especially the RICS (Black and Rabianski, 1996; Roulac, 2002; and Schulte and Schulte-Daxboek, 2003).

### **3.3 Property industry survey**

The property industry survey was conducted to collect comments from real estate practitioners in the property industry in South Africa on Masters Real Estate topics offered in South Africa and in other parts of the world as part of the process of critical assessment of the programmes. The aim of the survey was to test the curricula and see if they were meeting industrial requirements, and to receive views from professional practitioners in the industry with regard to areas of the curricula that needed further improvement. The objective of the exercise was to update the curricula to meet industrial requirements.

Justification for the survey was based on the fact that most property courses in South Africa were developed by soliciting the opinions of experts in the various fields. However, no proper property industry survey involving real estate practitioners was undertaken to assess curriculum needs of the industry on a more scientific basis (Cloete, 2002). Therefore, the objective of the survey is to partially address that vacuum on postgraduate real estate education research in South Africa.

The aim of Masters Real Estate curricula in South Africa, like other curricula, is to produce effective real estate professionals for the property industry (Black *et al.*, 1996). To establish whether the curricula were fulfilling their aim, a survey of real estate practitioners was relevant to obtain their opinions on the curricula.

### 3.3.1 Questionnaire

The questionnaire used to survey the property industry was designed and developed based on several sources. The first source of similar questions came from related investigations conducted to establish important real estate topics offered around the globe by asking real estate educators and practitioners worldwide what they thought and taught. Surveys by Black and Rabianski in 1998 and 1999 investigated real estate topics in the global context as an attempt to identify real estate body of knowledge. A study by Galuppo and Worzala (2004) which described the process followed by faculty and staff of the University of San Diego's Burnham-Moores Centre for Real Estate to develop a Masters Degree in Real Estate gave insight to the development of the questionnaire. Another study by Callanan and McCarthy (2003) titled 'Property education in New Zealand: Industry requirements and student perceptions', which investigated needs of the industry and students in the process of curriculum review was also helpful in designing the questionnaire. The research conducted here had incorporated views and thoughts from these surveys and used them as models in the process of designing the questionnaire for the study.

The second source of information for the questionnaire came from interviews with real estate practitioners and academicians, which were held at the following conferences and seminar: The 9<sup>th</sup> African Congress of Shopping Centres at Sandton Convention Centre, Johannesburg in South Africa from 6 to 8 October 2004; One day national seminar hosted by the Northern Branch of South African Institute of Valuers at Kopanong Hotel, Benoni, East of Johannesburg on 11th February 2005; The 37<sup>th</sup> South African Property Owners Association (SAPOA) International Convention and Property Exhibition at Sun City, South Africa from 18 to 20 May 2005; and The International Real Estate Research Symposium 2006 in Kuala Lumpur, Malaysia from 11 to 13 April 2006. The real estate practitioners and academicians who were interviewed sufficiently represented a broad geographic and practice distribution to reasonably represent the views of the industry on issues and questions to be asked about

Masters Real Estate curricula. The interviewees were purposively selected based on different fields of real estate. The aim of the interviews was to generate some constructs or themes for the questionnaire, which would subsequently be used to gather relevant data for the survey. The conceptual framework, which provided the theoretical base of the study, was developed in part from the interviews.

The last source of questions was from the Masters Real Estate topics which were identified in the curricula in South Africa and other parts of the world. All common topics in South Africa and other parts of the world, which formed a Masters syllabus were sorted and put together in a form of Masters Real Estate model syllabus. At the end of this stage, which was at the end of June 2006, a complete draft questionnaire ready to be tested was produced. The questionnaire comprised of three sets of questions. Part 1: Details of respondent; Part 2: Assessment of Masters Real Estate topics offered in South Africa and other parts of the world; and Part 3: Requirements of the property industry.

Part 1 of the questionnaire comprised of questions asking the respondent to give personal details i.e. highest qualification obtained, current employer/s, current property industry involvement/s, years of experience, and geographic location/s. Part 2 consisted of questions asking the respondent to rank real estate topics in order of their importance using the Lickert scale, and advise approximate time as a percentage to be spent on a subject during the course. Finally, Part 3 of the questionnaire addressed requirements of the property industry by asking the respondents two open-ended questions with a maximum of five suggestions for each question. Here the real estate professionals were asked to indicate new topics needed and any other comments or suggestions to be considered in a Masters Real Estate programme. A copy of the questionnaire which was used in the study is given in Appendix A.

At the beginning of questionnaire design, it was also decided to consult a statistician in the Department of Statistics at the University of Pretoria in South Africa at all stages of questionnaire development up to data analysis to ensure that data was effectively analysed and interpreted using appropriate data analysis techniques for the investigation.

### **3.3.2 Pilot survey**

Before conducting the main survey a pilot survey was undertaken to test the questionnaire. A pilot sample of 20 real estate professionals was identified in the Gauteng and Eastern Cape Provinces. The identified pilot survey professionals represented different fields of real estate and were requested to critically comment on the questionnaire before final distribution. The pilot survey professionals included professionals with interests in property education, property valuation, property management, property development, and property law. For the professionals in Gauteng, the questionnaire was delivered by hand; and for the professionals in the Eastern Cape, the questionnaire was sent and received by fax. Out of the 20 questionnaires which were sent out, 16 were returned, constituting a 80% response rate. The pilot survey was completed at the end of July 2006.

After completing the pilot survey, relevant changes were made to the questionnaire to incorporate comments received from the pilot survey professionals in readiness for the main survey. For validity purposes, real estate professionals who participated and responded in the pilot survey were excluded from the mailing list of the main survey.

### **3.3.3 Sample populations**

The data for the property industry survey was obtained through a questionnaire administered to 748 delegates who attended the 38<sup>th</sup> SAPOA International Convention and Property Exhibition held at the International Convention Centre in Durban from 17 to 19 May 2006; and 29 first and second year students who enrolled for the Master of Science in Real Estate Degree for year 2006 at the University of Pretoria in South Africa. The delegates for the SAPOA conference included SAPOA members, and their mailing list was obtained from SAPOA Head Office in Sandton, Johannesburg. The total number of delegates and students polled was 777.

Justification for using SAPOA members and delegates in the property survey was that SAPOA is recognised as the main representative body and official voice of the leading and large property investment organisations in South Africa from the private sector for the property industry, with a combined property portfolio in excess of R150 billion. Its members control almost 90% of all commercial and industrial property in South Africa. The association is held in high esteem by relevant sectors of government and is consulted on most issues pertaining to the property industry. Its members include: property owners and

developers; property managers; property investors; banks; insurance companies; pension funds; academics; property consultants; researchers; lawyers; contractors; government; and many other professionals. As it can be noted its members come from different sectors of the property industry. This benefited the investigation in the sense that practitioners from different real estate fields were given the opportunity to comment on topics in Masters Real Estate curriculum and offer suggestions on areas of curriculum development for the curriculum to remain relevant and meet industrial requirements. SAPOA members also come from different geographical regions of South Africa. This gave an added advantage to the study by collecting comments on the curriculum from real estate practitioners based in different parts of South Africa.

MSc Real Estate students at the University of Pretoria were included in the property survey because, just like employers and practitioners, they were in a better position to assist academicians in curriculum improvement and development for at least two reasons (Manning, 2002). First, most MSc students already had substantial work experience. Therefore, they were aware of what the industry was looking for. Second, many students investigate the knowledge and the skills they require in a workplace. As a result, student participation in the survey enriched the data collected by allowing students, who are the products of the curriculum, to offer comments on the curriculum with regard to what they were expecting to learn.

#### **3.3.4 Main survey**

Questionnaires were sent to 748 SAPOA delegates by post using a letter of transmittal with a University of Pretoria letter head, signed by the researcher and counter-signed by the Study Supervisor (see Appendix B: Letter of Transmittal). Pre-stamped envelopes were used. The questionnaires were sent out together with enclosed pre-addressed envelopes, which the respondents used to return the answered questionnaires. For the 29 Master of Science in Real Estate students, an appointment was made with the Programme Director for the Master of Science in Real Estate programme at the University of Pretoria to allow access to the students during pre-arranged lecture periods to administer the questionnaire to the students by hand. Out of 777 questionnaires which were posted and handed out, a total of 250 questionnaires were returned, constituting 32.18% response rate. The main survey was completed at the end of September 2006.

### **3.3.5 Questionnaire coding**

At the end of September 2006, the majority of questionnaires sent in the main survey were received. During the month of October 2006, the returned questionnaires were coded and assessed to evaluate answers and comments given by respondents.

### **3.3.6 Data capturing and cleaning**

After completing questionnaire coding, data was captured from the questionnaires into the computer in readiness for analysis from 1<sup>st</sup> to 17<sup>th</sup> November 2006. Cleaning of data followed after data capturing and it was done from 20<sup>th</sup> to 21<sup>st</sup> November 2006. The objective of data cleaning was to correct any mistakes entered on the captured data with the intention of obtaining accurate results.

The data cleaning exercise was followed by data analysis and interpretation, which are covered in Chapter 5 (Property Industry Survey) to assess the relevance of Masters Real Estate curricula in South Africa. The findings and interpretations were employed in the process of developing a model curriculum for the programmes in Chapter 6 (Model Curriculum).

## CHAPTER 4

### CURRICULUM SURVEY

#### 4.1 Introduction

The curriculum survey was undertaken to identify Masters Real Estate curricula offered in South Africa and in other parts of the world. These curricula were analysed in terms of course content to identify common Masters Real Estate topics which were presumed to be supporting property constituents in the property industry.

In the survey, Masters Real Estate curricula in South Africa were also compared with equivalent courses both locally and internationally. This exercise was a significant component of the critical assessment of postgraduate real estate curricula offered in South Africa for two main reasons.

First, no systematic scientific survey was conducted to compare the courses with each other or equivalent courses internationally (Cloete, 2002). Further, the increasing tendency of real estate professionals to study or work in different countries, as well as the drive especially by the RICS for international accreditation of qualifications in the field of real estate had necessitated a comparison of the scope and contents of postgraduate real estate curricula offered by different universities in the world (Chikafalimani and Cloete, 2006a). In addition, globalisation of real estate education and transactions had gained importance (Black and Rabianski, 1996; Roulac, 2002; and Schulte and Schulte-Daxboek, 2003). Therefore, assessment of postgraduate real estate curricula in South Africa to ascertain if they were comparable to similar curricula and conveying the knowledge required for property involvements in the global context was necessary. This was particularly important because apart from serving needs of the local industry, the South African programmes regularly attracted students from other African countries since there are relatively few postgraduate real estate courses in Africa (Cloete, 2002; and Chikafalimani and Cloete, 2006a).

Second, curricula analysis and comparison in this investigation will support the global effort of discovering contents of real estate curricula and extending literature on real estate curriculum, and providing insights for their improvement. The documentation of current level



of skills and knowledge being taught in academic real estate was called by Epley (1996). This gap is partially addressed by this survey with emphasis on postgraduate real estate curricula in South Africa which is the focus of the study.

## **4.2 Selected postgraduate real estate curricula**

In total out of 73 Masters Real Estate curricula which were identified in the survey, 30 were selected for comparison, representing 41%. The 30 selected programmes consist of 5 curricula from South Africa, 3 from other African countries, and 22 from other continents. Final curriculum selection was restricted to comprehensive Masters Real Estate programmes offered in English and by coursework in different parts of the world. Lack of access to curriculum details also contributed to some programmes being omitted in the selection and comparison processes. The postgraduate real estate curricula offered in South Africa, other African countries, North America, Europe, Asia, and Pacific-Rim which were selected for purposes of this survey are described next in this section. Detailed individual curriculum description has been limited to selected postgraduate real estate curricula in Africa because the study is emphasising curriculum assessment from the African perspective.

### **4.2.1 Postgraduate real estate curricula in South Africa**

In a study on progress in real estate education in South Africa, Cloete (2002) noted that the University of Pretoria introduced Master of Science in Real Estate in 1990. Cloete (2002) further noted that the University of Witwatersrand offers a Masters in Property Development and Management, while the University of Cape Town has been offering a Masters in Property Studies since 1999 and the University of the Free State introduced a Masters in Property Science in 2002. The Nelson Mandela Metropolitan University (formerly University of Port Elizabeth) started to offer Master of Science in the Built Environment on 24<sup>th</sup> June 2002 (Chikafalimani and Cloete, 2006a). The details of these curricula are described below (adapted from 2009 study guides of: Department of Construction Economics, University of Pretoria; Department of Construction Economics and Management, University of Cape Town; School of Construction Economics and Management, University of Witwatersrand; Department of Quantity Surveying and Construction Management, University of Free State; and Departments of Construction Management and Quantity Surveying, Nelson Mandela Metropolitan University).

#### 4.2.1.1 MSc (Real Estate) degree programme offered by University of Pretoria

The course is developed and implemented by the Department of Construction Economics which is part of the School for the Built Environment in the Faculty of Engineering, Built Environment and Information Technology. The MSc (Real Estate) degree programme at the University of Pretoria is intended for graduates such as quantity surveyors, construction managers, architects, engineers and other professionals from the built environment who contemplate furthering their academic qualifications in the property industry. Tuition is arranged in block weeks to enable students from centres outside Pretoria to follow the course.

For student admission purposes, a previous five-year Bachelor's or a present Honour's degree in Quantity Surveying or Construction Management or another acceptable four-year degree, as well as appropriate practical experience, deemed sufficient, is required. In order to supplement knowledge of the built environment, it may be required of students who do not possess a degree in Quantity Surveying or Construction Management to pass additional admission course subjects during the first year of study of their MSc degree course. Students may, alternatively, enrol for these only in the year prior to enrolling for MSc.

Table 4.1 contains recommended course subjects for a student to follow in order to meet the completion requirements for the degree. The degree is obtained by following prescribed coursework in property development, property management, property valuation and related subjects; and submitting a treatise. The minimum study period is two years. A sub-minimum of 40 percent for semester and year marks is required for admission to examinations on any subject. A minimum final mark of 50 percent is required for a student to obtain a pass in any subject. 50 percent is also a minimum requirement to pass the treatise.

In order to be considered for the award of the degree, a student should have obtained 170 credits for course subjects and, in addition, have submitted and passed a treatise (60 credits), i.e. a total of 230 credits.

**Table 4.1: Masters Real Estate programmes offered in South Africa**

University & Degree offered	Core subjects offered	Credits
University of Pretoria:	Property Development (including Property Finance and Marketing).	40

Master of Science in Real Estate	Property Management & Facilities Management. Property Investment. Property Valuation. Construction Contract Law. Financial Management. Research Methodology. Treatise. Total	40 10 40 10 20 10 60 230
University of Witwatersrand: Master of Science in Property Development Management	Property Environment. Property Planning. Property Investment and Development. Law for the Property Economist. Property and Construction Marketing. Property Economics and Valuation. Research Methodology. Elective Subject. Treatise. Total	15 15 15 15 15 15 15 60 180
University of Free State: Masters in Property Science	Property Development. Building Economics. Land Evaluation. Land Valuation and Business Plans. Construction and Agricultural Engineering. Construction Contracts, Procedure and Procurement. Environmental Economics. Applied Game Farm Planning. Introduction to Theory of Regional Planning. Introductory Studies in Regional Planning. Urban Planning Practice. Property Valuation and Management. Optional Modules. Research Report. Total	32 16 32 8 16 8 8 16 16 8 8 16 24 32 240
University of Cape Town: Master of Science in Property Studies	Property Development. Urban Land Economics. Property Law. Property Finance. Property Valuation. Property Portfolio Management. Introduction to Research. Research Methodology. Introduction to Applied Statistics. Further Applied Statistics. Research Report. Total	20 20 20 20 20 4 6 4 6 40 180

**Table 4.1 (continued): Masters Real Estate programmes offered in South Africa**

University & Degree offered	Core subjects offered	Credits
Nelson Mandela Metropolitan	Management Information Systems for Construction and IT Applications. Corporate Strategy.	16 16

University: Master of Science in Built Environment	Accounting and Project Finance.	16
	Strategic Asset and Facilities Management.	16
	Property Investment and Portfolio Analysis.	16
	Building Energy Analysis and Management / Property Valuation.	16
	Facilities Operations Management / Property Development Planning and Appraisal.	16
	Research Methodology.	16
	Elective Subject.	14
	Treatise	60
	Total	202

Sources: Real Estate Study Guides Universities of Pretoria, Witwatersrand, Free State, Cape Town, and Nelson Mandela Metropolitan (2009)

#### 4.2.1.2 MSc (Property Studies) degree programme offered by University of Cape Town

The MSc (Property Studies) degree programme at the University of Cape Town is developed and implemented by the Department of Construction Economics and Management in the Faculty of Engineering and the Built Environment. The primary aim of the programme is to produce graduates with the necessary skills to enter the property field at a professional managerial level. Students are exposed to the full spectrum of property-related disciplines and issues, including: urban land economics, property law, property finance, property development, property valuation and property portfolio management. In addressing each of these course subjects, a strong emphasis is placed on the development of decision-making skills and advanced research skills.

Given the multi-disciplinary nature of the property field, the programme is designed to attract students from a variety of undergraduate disciplines and experiential backgrounds who wish to specialise in property. Applicants should hold an honours or a four-year bachelor's degree in a relevant field, obtained from a recognised tertiary institution. Examples of appropriate qualifications include, but are not limited to: construction management, quantity surveying, architecture, engineering, planning, commerce and law. In addition, applicants should have work experience and should preferably be currently employed in the built environment field.

Table 4.1 contains recommended course subjects for a student to follow in order to meet the completion requirements for the degree. The study period for the degree is two years. The degree is obtained by following prescribed coursework and submitting a research report. A student is required to take the six modules plus the research and statistics modules (140 credits). In addition, a student must submit a research report (40 credits). Student academic

progress is assessed by the accumulation of credits obtained in written examinations and marked assignments for each module.

#### **4.2.1.3 MSc (Property Development and Management) degree programme offered by University of Witwatersrand**

This curriculum is developed and implemented by the School of Construction Economics and Management in the Faculty of Engineering and the Built Environment. Table 4.1 contains prescribed course subjects for a student to follow in order to meet the completion requirements for the degree. The degree is obtained by completing a total of eight course subjects and submitting a research report. The degree requires one year of full time study or two years of part time study. Courses are offered either over an extended period of study during one term, or in one week blocks with further lectures, seminars and tutorials, or in the evenings. Students doing courses on part time are expected to be on campus full time for the block release courses. For a student to pass, a minimum of 50 percent must be obtained in each subject, and a total of 180 credits must be achieved to meet completion requirements for the degree.

#### **4.2.1.4 Masters in Property Science degree programme offered by University of Free State**

Masters in Property Science degree programme at the University of Free State is developed and implemented by the Department of Quantity Surveying and Construction Management in the Faculty of Natural and Agricultural Sciences. A student may be admitted to the programme if he/she is in possession of one of the following qualifications:

- A bachelor's degree in urban and regional planning;
- A bachelor's degree in architecture, civil engineering, land surveying, quantity surveying, construction management, land and property development and management;
- An approved degree with majors in one of the following relevant fields of study: agricultural economics, anthropology, applied mathematics, botany, business management, computer information systems, economics, environmental science, forestry, geology, geography, mathematical statistics, statistics, psychology, sociology, applied mathematics, public administration, law, physics, tourism, sports management, etc.; and

- A bachelor of technology degree in above fields may also be considered for admission.

If a student does not entirely meet the admission requirements, the dean may, in consultation with the head of the department, in meritorious cases, recommend that some concessions be made in respect of the requirements.

A student in possession of one of the above mentioned qualifications may also not automatically be accepted for the programme. Depending on circumstances of the student, the head of department may request a written motivation or personal interview and may require additional modules to be registered.

The degree is presented as a residential or open learning programme. Eight workshops (class and contact sessions) during the two years of the programme are compulsory and are determined by the head of department. Each workshop is for one week. During these workshops, sessions take the form of tutorials, practicals and discussions. Assignments and tests / examinations are also administered. Table 4.1 contains prescribed course subjects for a student to follow in order to meet the completion requirements for the degree.

In order for the degree to be awarded, the student must complete the residential or open learning programme (coursework) and submit a research report. The student must do research on a project selected in consultation with the head of department or on an approved topic.

For a student to pass, a minimum of 50 percent must be obtained in each subject. In addition, the student must achieve 240 credits (of which 32 credits are for the research project) in order to meet completion requirements for the degree.

#### **4.2.1.5 MSc (Built Environment) degree programme offered by Nelson Mandela Metropolitan University**

Master of Science in Built Environment degree programme at the Nelson Mandela Metropolitan University is jointly offered by the Departments of Construction Management and Quantity Surveying in the Faculty of Economic and Building Sciences. This degree

programme is designed to advance the careers of professionals in the construction and property industries. Four specialist fields of study are offered and are as follows: property economics and valuation, facilities management, project management, and construction management.

A range of student admission criteria are acceptable to maximise eligibility for admission, and to enhance the shared experiences during instruction, resulting from candidates' diverse occupations. The admission requirements are as follows:

- Bachelor of Science honours degree in Quantity Surveying or Construction Management;
- Bachelor of Architecture degree;
- Four-year minimum bachelors degree in other disciplines;
- Bachelor of Technology degree in Quantity Surveying, Construction Management or Architecture, with a minimum of five years working experience;
- Professional Diploma in Quantity Surveying (RQS or ARICS), Construction Management or Architecture with a minimum of seven years working experience; and
- Any person accepted as a candidate for degree by the University.

Table 4.1 contains a schedule of subjects for the degree programme in order for a student to meet its completion requirements. The programme includes both coursework and a research-based treatise. The duration of study to complete the degree is one year for full time or two years for part time students. The coursework is presented on a four or five block release system. Each block release is for one week. This system has also enabled students that are busy or not residing in Port Elizabeth to be able to attend the course at the university during the blocks.

A minimum of 50 percent is required for a student to pass each subject and the treatise. In order to be considered for the award of the degree, a student should have obtained a minimum of 202 credits comprising of treatise (60 credits) and 8 modules of 16 credits each plus one elective of 14 credits.

#### **4.2.2 Postgraduate real estate curricula in other African countries**



Chikafalimani and Cloete (2006a) did a survey on postgraduate real estate education in Africa. In the study three Masters Real Estate curricula offered in other countries of Africa were identified. Obafemi Awolowo University in Nigeria is offering Master of Science in Estate Management. In Kenya, University of Nairobi offers Master of Arts in Valuation and Property Management. Ardhi University (former University College of Lands and Architectural Studies) in Tanzania is offering Master of Science in Real Estate. The details of individual programmes are described next (adapted from 2009 study guides of: Department of Estate Management, Obafemi Awolowo University; Department of Land Development, University of Nairobi; and Ardhi University (former UCLAS)).

#### **4.2.2.1 MSc (Estate Management) degree programme offered by Obafemi Awolowo University in Nigeria**

The Department of Estate Management at Obafemi Awolowo University (OA) in Nigeria is responsible for offering MSc Degree in Estate Management. The duration taken for a student to complete the degree is a minimum of twelve months. The coursework required is a minimum of 20 course units. In addition each candidate must conduct research and present a thesis which carries a minimum of 4 course units.

To be accepted for this MSc Degree, candidates must have at least Second Class Honours Degree in the following fields: Estate Management, Urban Land Economics and Urban Land Administration. In terms of coursework, students must take the compulsory courses and select electives from the electives list. The main objective of the Department of Estate Management at Obafemi Awolowo University is to provide an academic course in Estate Management which is specifically directed towards providing academic and professional practitioners with a body of more advanced and sophisticated analytical tools which are essential for sound and effective decision making in land use, land development and land management. The programme has been overhauled to reflect current developments in the profession. This has resulted from the growing need by academic and professional practitioners in estate management to strengthen and broaden their theoretical and conceptual base. Table 4.2 shows the course subjects offered in the programme.

**Table 4.2: Masters Real Estate programmes offered in other countries of Africa**

University & Degree	Core subjects offered	Credits
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Ardhi: (former University College of Lands & Architectural Studies): (Master of Science in Real Estate)	Comparative Land Law.	2
	Business Management.	3
	Property Development and Finance.	3
	Land Resources Management.	3
	Real Estate Economics.	2
	Environmental Management.	2
	Advanced Valuation	4
	Land Administration Casework	3
	Research Methodology.	3
	3 Elective Subjects	9
	Dissertation.	6
Total	40	
Nairobi: Master of Arts in Valuation and Property Management	Property Development.	45
	Computer Application in Valuation and Property Management.	45
	Urban Economics and Management.	45
	Land Management.	45
	Valuation of Natural Resources.	45
	Financial Management in Real Estate.	45
	Property Management.	45
	Property Portfolio Investment.	45
	Environmental Impact Assessment.	45
	Property Agency and Marketing.	45
	Valuation of Equipment, Furniture and Fittings.	45
	Risk Management and Loss Adjustment.	45
	Arbitration and Conflict Management in Real Property	45
	Professional Practice.	45
Research Methods.	45	
Research Project.	225	
Total	900	
Obafemi Awolowo: Master of Science in Estate Management	Advanced Valuation, Feasibility and Viability Appraisals.	3
	Management of Landed Property.	2
	Decision and Investment Theory Applied to Landed Property.	3
	Advanced Quantitative Techniques in Planning.	3
	3 Electives	9
	Thesis.	4
Total	24	

Sources: Real Estate Study Guides Universities of Ardhi, Nairobi, and Obafemi Awolowo (2009)

#### **4.2.2.2. Master of Arts in Valuation and Property Management degree programme offered by University of Nairobi in Kenya**

The Department of Land Development in the Faculty of Architecture, Design and Development at University of Nairobi (UON) in Kenya is responsible for offering Master of Arts in Valuation and Property Management. The programme targets real estate professionals such as valuers, property managers, building surveyors and land administrators. The main objective of the course is to develop proficiency in operational skills of candidates so that they can effectively apply them in making financial and economic decisions in all aspects of property valuation, property development and property management. It is also valuable for decision makers who must judge real estate investment proposals prepared by others.

The following candidates are eligible for admission into the degree of Master of Arts in Valuation and Property Management:

- Holders of a degree of at least Upper Second Class Honours in Land Economics.
- Holders of a degree of at least Upper Second Class Honours in Architecture, Building Economics, Engineering, Commerce, Economics, Social Sciences, Agriculture, Forestry or any other comparable degree in terms of academic status. In addition candidates are required to have at least one year of research, teaching or practical experience in Land Administration, Farm Management, Property Development, Property Management or Valuation.
- Holders of a degree of at least Lower Second Class Honours in any of the degrees specified above with a relevant Postgraduate Diploma or other equivalent qualifications and at least two years of work experience.

The curriculum comprises a two-year programme covering four semesters. In addition, the curriculum consists of lectures, coursework, seminars and project work; written examination papers at the end of each semester of the first year and end of first semester of second year; and a research project to be examined at end of second semester of the second year. The course comprises of 16 compulsory course units. Table 4.2 shows the course subjects offered in the programme.

#### **4.2.2.3 MSc (Real Estate) degree programme offered by Ardhi University (former University College of Lands and Architectural Studies) in Tanzania**

Ardhi University in Tanzania is offering a Master of Science Degree in Real Estate. This programme aims at providing advanced training in real estate and its specific objectives are:

- To improve the analytical ability of the programme participants and enable them to work as land administrators, valuers, and estate managers upon graduation.
- To inculcate modern business management skills in the minds of programme participants.
- To equip the participants with contemporary knowledge and skills in development control, waste management, environment related legislation and the influence of environmental pollution on real estate valuation.
- To impart knowledge on innovative financing techniques in property development.

- To enable programme participants to acquire skills that would enable them to conduct valid research on matters related to real estate.

The entry qualification for this programme is at least a second class grade Bachelor's Degree in Land Management and Valuation, Urban and Regional Planning, Building Economics, Architecture, Land Surveying, Environmental Engineering, Geography, Economics, Commerce, Civil Engineering or any other relevant degree; or a relevant Postgraduate Diploma in Valuation or other relevant diploma from a recognised University or institution of higher learning.

Student assessment includes coursework (40 percent) and written examinations (60 percent) giving a total of 100 percent. The programme requires a candidate to obtain a minimum of 34 units (i.e. 25 units of core courses and a minimum of 9 units of electives), before writing a dissertation which has 6 units (i.e. a minimum of 40 units in total) to complete the degree. The minimum duration for a candidate to complete the degree is two years. Table 4.2 shows the course subjects offered in the programme.

#### **4.2.3 Postgraduate real estate curricula in North America**

In North America, the USA was offering all Masters Real Estate programmes identified for review in this section. Galuppo and Worzala (2004) who did a study on the important elements of a Masters Degree in Real Estate observed that about a dozen Master of Science in Real Estate programmes are offered in the USA and many of them are focused on finance or development. Very few are multidisciplinary in their approach to the study of real estate. Directory of Real Estate Development and Related Education Programs (10<sup>th</sup> edition) was a detailed literature source for Masters Real Estate curricula offered in the USA. Seven Master's programmes which are specialising in real estate were selected for comparison in this critical assessment and are given in Table 4.3. Appendix D shows course subjects covered in these programmes.

#### **4.2.4 Postgraduate real estate curricula in Europe**

In a report on real estate education in Europe, Baum and Lizieri (2002) identified Universities of Reading (UK); Aberdeen (UK); Amsterdam (Netherlands); and Ulster (Republic of

Northern Ireland) as stronger institutions with European-wide influence, which are offering real estate programmes in English. Directory of Real Estate Development and Related Education Programs (10<sup>th</sup> edition) and RICS Prospectus for Surveying Education 2004/5 were additional literature sources which were used to identify Masters Real Estate curricula in Europe. In total nine programmes were selected. Seven are offered in UK and one each in Belgium and the Netherlands. Table 4.3 shows selected Masters Real Estate programmes offered in Europe. Course contents for the curricula are contained in Appendix D.

#### 4.2.5 Postgraduate real estate curricula in Asia

In Asia two Masters Real Estate programmes completed by following coursework and offered in English were identified. The National University of Singapore in Singapore is offering a Master of Science in Real Estate. In Hong Kong, University of Hong Kong also offers a Master of Science in Real Estate. Directory of Real Estate Development and Related Education Programs (10<sup>th</sup> edition) and RICS Prospectus for Surveying Education 2004/5 were useful literature sources for details of these programmes. Table 4.3 includes selected Masters Real Estate degree programmes offered in Asia. Content of course subjects in the programmes are shown in Appendix D.

#### 4.2.6 Postgraduate real estate curricula in the Pacific-Rim

In the Pacific-Rim four Masters Real Estate programmes were selected, two in Australia and two in New Zealand. Directory of Real Estate Development and Related Education Programs (10<sup>th</sup> edition) and RICS Prospectus for Surveying Education 2004/5 were useful literature sources for details of these programmes. Selected Masters Real Estate degree programmes offered in the Pacific-Rim are also included in Table 4.3. Appendix D exhibits course subjects covered in the programmes.

**Table 4.3: Masters Real Estate programmes offered in North America, Europe, Asia and Pacific-Rim**

Continent / Country / University	Degree offered
<i>North America</i>	
<b>U.S.A</b>	
1. John Hopkins	Master of Science in Real Estate
2. New York	Master of Science in Real Estate
3. Pennsylvania State	Master of Science in Real Estate
4. San Diego	Master of Science in Real Estate



5. George State	Master of Science in Real Estate
6. Texas at Arlington	Master of Science in Real Estate
7. Florida	Master of Science in Real Estate
<b>Europe</b>	
<b>U.K.</b>	
1. Reading	Master of Science in Real Estate
2. Ulster	Master of Science in Real Estate
3. Aberdeen	Master of Science in Property
4. Central England in Birmingham	Master of Science in Real Estate and Management
5. Kingston	Master of Science in Real Estate
6. London South Bank	Master of Science in Estate Management
7. West of England, Bristol	Master of Science in Real Estate and Business Management
<b>Belgium</b>	
8. Antwerp	Master of Real Estate
<b>Netherlands</b>	
9. Amsterdam	Master of Real Estate
<b>Asia</b>	
<b>Singapore</b>	
1. Singapore	Master of Science in Real Estate
<b>China</b>	
2. Hong Kong	Master of Science in Real Estate
<b>Pacific-Rim</b>	
<b>Australia</b>	
1. Curtin	Master of Property
2. Melbourne	Master of Property Studies
<b>New Zealand</b>	
3. Auckland	Master of Property
4. Lincoln	Master of Property Studies

Sources: Directory of Real Estate Programs, Urban Land Institute (2005) and RICS Prospectus of Surveying Education (2005), and university websites

## 4.3 Results and analysis

### 4.3.1 Comparison of Masters Real Estate curricula in South Africa

Tables 4.4, 4.5, 4.6 and 4.7 show the analysis and comparison of the five postgraduate real estate curricula offered in South Africa. The results indicate that Masters Real Estate programmes in South Africa are diverse and exhibit differences as well as similarities. The differences and similarities shown by the curricula are analysed in detail next in this section.

#### 4.3.1.1 Curriculum differences

##### a. Names of real estate curricula

Table 4.4 contains curriculum details of the programmes. It is noted that all five universities offering Masters Real Estate curricula in South Africa were using different names to identify the programmes. University of Pretoria (UP) named its programme Master of Science in Real Estate. University of Cape Town (UCT) called it Master of Science in Property Studies while University of Free State (UFS) had named its degree as Masters in Property Science. At Nelson Mandela Metropolitan University (NMMU) it was named Master of Science in Built Environment. University of Witwatersrand (UW) identified theirs as Master of Science in Property Development and Management. This represents 100% disagreement with regard to a preferred name to be used for the identification of Masters Real Estate curriculum in South Africa, revealing that at the moment there was no agreement on a unifying name to represent the curriculum among the institutions. The observation supports the claim made that the academic field of real estate is experiencing substantial disagreements on a number of issues.

Academic experts from the universities offering the courses were asked to give factors which were considered in the processes of naming real estate programmes. Factors considered included: educational needs of industry and students; nature of course content (curriculum emphasis); curriculum names of peer institutions; marketability of the courses; requirements of professional bodies; requirements of local professionals; local community and society concerns; and preferences of academic staff and university administrations. Another reason mentioned which was contributing to the choice of names was the history of educational influence. Departments and universities with strong British influence tended to use British names such as valuation, estate management, property, and built environment in their curricula.

**Table 4.4: Details of Masters Real Estate programmes in South Africa**

University & Dept / School	Name of degree	Admission requirements	Duration	Delivery	Total credits
Pretoria (Construction Economics)	MSRE	.Hons, 4 or 5 yr relevant bachelors degree .Work experience	2 yrs & treatise	8 block weeks	230
Witwatersrand	MSPDM	.Relevant good	1 yr full time,	1 week block	180

(Construction Economics & Management)		bachelors degree .Work experience	2yrs part time & treatise	release	
Cape Town (Construction Economics & Management)	MSPS	.Hons or 4 yr relevant bachelors degree .Work experience	2 yrs & treatise	Block system	180
Free State (Quantity Surveying & Construction Management)	MPS	.Relevant good bachelors degree	2 yrs & treatise	8 workshop weeks	240
Nelson Mandela Metropolitan (Construction Management & Quantity Surveying)	MSBE	.Relevant good bachelors degree .Work experience	1 yr full time, 2 yrs part time & treatise	4 or 5 block weeks	202
<b>Key:</b> MSRE: Master of Science in Real Estate MSPDM: Master of Science in Property Development and Management MSPS: Master of Science in Property Studies MPS: Masters in Property Science MSBE: Master of Science in Built Environment					

Sources: Real Estate Study Guides Universities of Pretoria, Witwatersrand, Free State, Cape Town, and Nelson Mandela Metropolitan (2009)

## b. Diversity of real estate topics

Table 4.5 contains topics offered in the five Masters Real Estate curricula in South Africa. The results show that the curricula were diverse and consisted of different course subjects, although there were few common elements in some course offerings required in the curricula. The curricula were also structured differently.

To demonstrate the diversity of topics in the curricula, the topics were sorted in Table 4.6 by university. Results show that in total 27 topics including treatise are offered in Masters Real Estate curricula in South Africa. Table 4.6 clearly illustrates topic diversity by showing

universities offering a topic and those not offering a particular topic. In Table 4.7 it is shown that 24 out of 27 topics were not offered by all the five universities in South Africa, representing 89% disagreement on course offerings. These topics include: Applied Game Farm Planning; Accounting and Project Finance; Building Energy Analysis and Management; Construction and Agricultural Engineering; Corporate Strategy; Environmental Economics; and Financial Management. Surprisingly, even other topics expected in real estate curricula were also not offered by all the five universities. For example: Facilities Management, Property Investment, Property Law, Property Management, Property Economics, Property Marketing, and Property Finance. The difference in composition of topics in the curricula could partly be due to different real estate educational needs of the local real estate industries and communities the universities intended to serve. For example, the inclusion of course subjects like Applied Game Farm Planning, and Construction and Agricultural Engineering by UFS could mean that the local industry and community being served considered agriculture, construction and game as important in their real estate involvements. It is important to note that the variation in topics offered in the curricula could equally create differences in the quality of educational products graduating from the universities. However, the difference in composition and diversity of real estate topics in the curricula in South Africa agrees with the observation noted in other similar studies that there is yet no general consensus on the body of knowledge with regard to the area of teaching and research in real estate (Epley, 1996; and Black and Rabianski, 2003).

**Table 4.5: Percentages of course subjects offered in Masters Real Estate curricula in South Africa**

University & Degree offered	Core subjects offered	Credits allocated	% of subject in curriculum
Pretoria: Master of Science in Real Estate	Property Development (including Property Finance, Property Law, and Property Marketing).	40	17.4
	Property Management/Facilities Management.	40	17.4
	Property Investment.	10	4.3
	Property Valuation.	40	17.4
	Construction Contract Law.	10	4.3
	Financial Management.	20	8.7
	Research Methodology.	10	4.3
	Treatise.	60	26.1
	Total	230	100



Witwatersrand: Master of Science in Property Development & Management	Property Environment.	15	8.3
	Property Planning.	15	8.3
	Property Investment and Development.	15	8.3
	Law for the Property Economist.	15	8.3
	Property and Construction Marketing.	15	8.3
	Property Economics and Valuation.	15	8.3
	Research Methodology.	15	8.3
	Elective Subject.	15	8.3
	Treatise.	60	33.3
	Total	180	100
Free State: Masters in Property Science	Property Development.	32	13.3
	Building Economics.	16	6.7
	Land Evaluation.	32	13.3
	Land Valuation and Business Plans.	8	3.3
	Construction and Agricultural Engineering.	16	6.7
	Construction Contracts, Procedure and Procurement.	8	3.3
	Environmental Economics.	8	3.3
	Applied Game Farm Planning.	16	6.7
	Introduction to Theory of Regional Planning.	16	6.7
	Introductory Studies in Regional Planning.	8	3.3
	Urban Planning Practice.	8	3.3
	Property Valuation and Management.	16	6.7
	Optional Modules.	24	10
Treatise.	32	13.3	
Total	240	100	
Cape Town: Master of Science in Property Studies	Property Development.	20	11.1
	Urban Land Economics.	20	11.1
	Property Law.	20	11.1
	Property Finance.	20	11.1
	Property Valuation.	20	11.1
	Property Portfolio Management.	20	11.1
	Introduction to Research.	4	2.2
	Research Methodology.	6	3.3
	Introduction to Applied Statistics.	4	2.2
	Further Applied Statistics.	6	3.3
	Treatise.	40	22.2
	Total	180	100

**Table 4.5 (continued): Percentages of course subjects offered in Masters Real Estate curricula in South Africa**

University & Degree offered	Core subjects offered	Credits allocated	% of subject in curriculum
Nelson Mandela Metropolitan: Master of Science in Built Environment	Management Information Systems for Construction and IT Applications.	16	7.9
	Corporate Strategy.	16	7.9
	Accounting and Project Finance.	16	7.9
	Strategic Asset and Facilities Management.	16	7.9
	Property Investment and Portfolio Analysis.	16	7.9
	Building Energy Analysis and Management / Property Valuation.	16	7.9
	Facilities Operations Management / Property Development Planning and Appraisal.	16	7.9
	Research Methodology.	16	7.9
	Elective Subject.	14	4.9

	Treatise	60	29.7
	Total	202	100

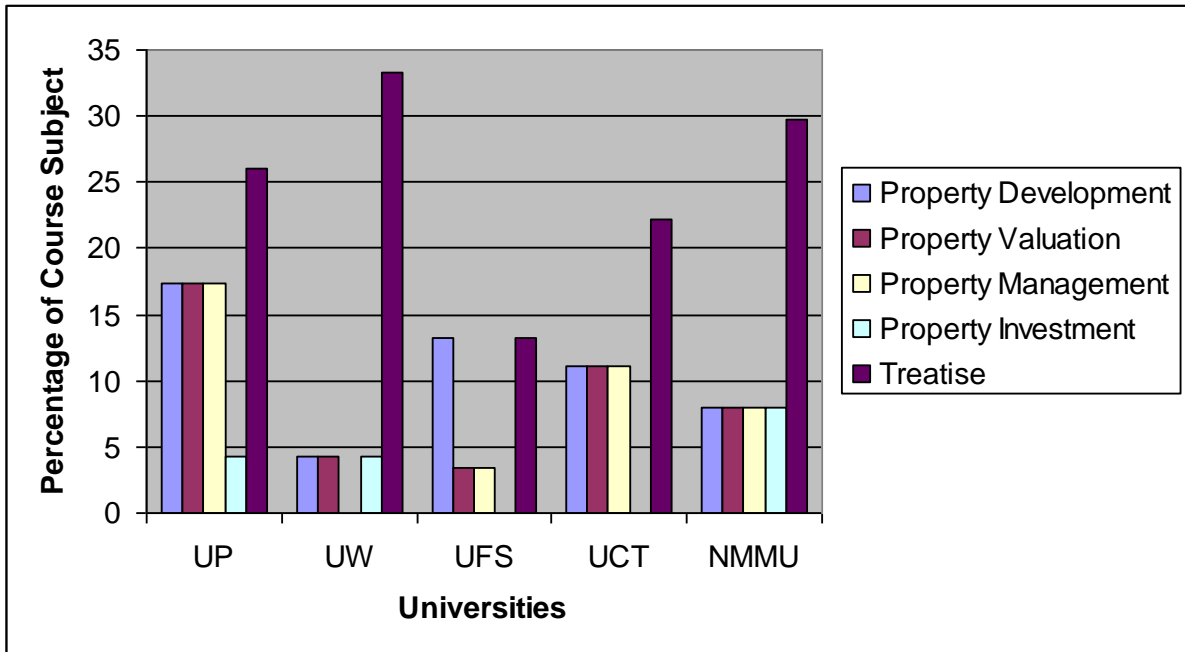
Sources: Real Estate Study Guides Universities of Pretoria, Witwatersrand, Free State, Cape Town, and Nelson Mandela Metropolitan (2009)

### c. Percentages of course subjects

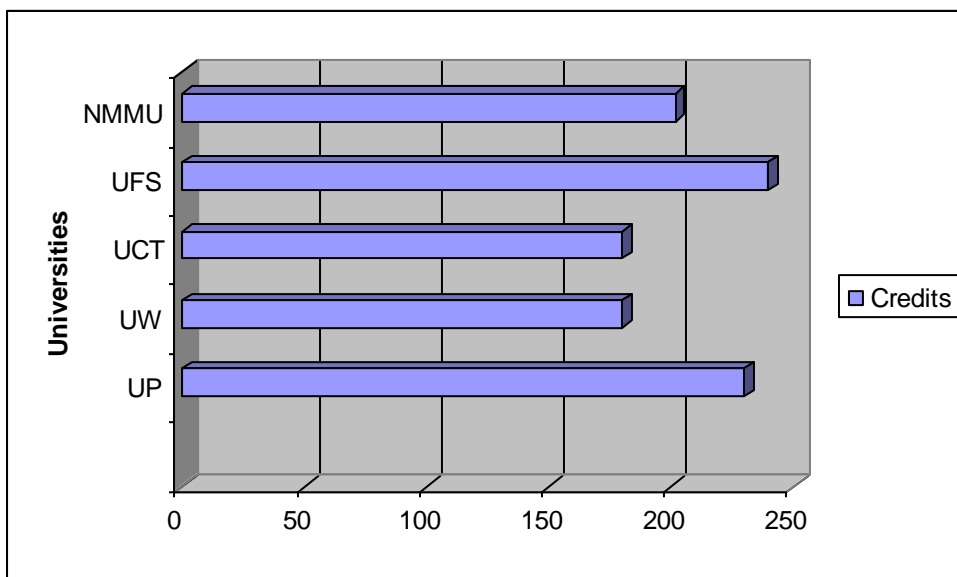
The other difference noted in the curricula was the difference in credit hours allocated to common course subjects. This difference was shown in Table 4.5 in the form of subject percentages of the course content. For example UP, UW, UFS, UCT and NMMU allocated 17.4%, 4.2%, 3.4%, 11.1% and 7.9% of its course credits, respectively to Property Valuation in their different curricula. Figure 4.1 illustrates the variations of credit hours allocated to some common course subjects expressed as percentages of course content. The differences in percentages of credit hours allocated by the universities to common subjects in the curricula reflected differences in importance of common real estate topics relative to needs of targeted local real estate industries and communities.

These figures could also be interpreted differently. For a course subject like Treatise (Research Report), UW allocated to it more time (33.3%) than any of the five universities in its curriculum. This gives an impression that UW placed more emphasis on research in its approach to postgraduate real estate education. However, it should be noted that the relative greater credit allocation to the treatise by UW resulted in less credit hours being allocated to other course subjects in the curriculum.

**Figure 4.1: Comparison of percentages of some common course subjects offered in Masters Real Estate curricula in South Africa**



**Figure 4.2: Comparison of total credits allocated to Masters Real Estate curricula offered in South Africa**



**d. Course credit allocation systems**

Table 4.5 and Figure 4.2 show different credit allocation systems used by the five universities for their curricula. It is noted that UP, UW, UCT, UFS and NMMU allocated 230, 180, 180, 240, and 202 credits, respectively to their programmes. The main reason for this difference could be different credit allocation systems approved by different university administrations for different educational programmes they offered, including Masters Real Estate programmes. Lack of uniformity in credit allocation systems followed by the different universities caused a major problem, making comparisons of the curricula difficult.

#### 4.3.1.2 Curriculum similarities

##### a. Common real estate topics

When the five curricula were analysed it was noted that they possessed some common topics expected in a real estate curriculum. In Table 4.7 it is shown that Property Development, Property Valuation, and Treatise were offered by all the five universities. This indicates that these three subjects were the most common topics offered in Masters Real Estate in South Africa. Research Methodology came second by being offered by four universities. Third on the list of common subjects are Property Investment, Property Law, Property Management, and Property Economics for being offered by three out of the five universities. This proves that despite the disagreements in course subjects, there were some agreements on course offerings in the study of real estate in South Africa. The results agree with Epley (1996) and Black and Rabianski (2003) who argued that common elements in course offerings were noticeable in most real estate curricula despite the disagreements.

**Table 4.6: Topics offered in Masters Real Estate curricula in South Africa by university**

	Core subjects offered	University offering					Total	Comment
		UFS	UCT	UP	NMMU	UW		
1	Applied Game Farm Planning.	1	0	0	0	0	1	



2	Accounting & Project Finance.	0	0	0	1	0	1	
3	Building Economics.	1	0	1	0	0	2	At UP part of PD
4	Building Energy Analysis and Management.	0	0	0	1	0	1	
5	Construction Contract Law / Construction Contracts, Procedure & Procurement	1	0	1	0	0	2	
6	Construction and Agricultural Engineering.	1	0	0	0	0	1	
7	Corporate Strategy.	0	0	0	1	0	1	
8	Environmental Economics.	1	0	0	0	0	1	
9	Financial Management.	0	0	1	0	0	1	
10	Further Applied Statistics Applied / Introduction to Applied Statistics	0	1	0	0	0	1	
11	Facilities Management / Facilities Operations Management / Strategic Asset & Facilities Management	0	0	1	1	0	2	
12	Introduction to Theory of Regional Planning / Introductory Studies in Regional Planning	1	0	0	0	0	1	
13	Introduction to Research / Research Methodology	0	1	1	1	1	4	
14	Land Evaluation	1	0	0	0	0	1	
15	Land Valuation and Business Plans	1	0	0	0	0	1	
16	Management Information Systems for Construction & IT Applications	0	0	0	1	0	1	
17	Property & Construction Marketing	0	0	1	0	1	2	At UP part of PD
18	Property Development / Property Development Planning & Appraisal	1	1	1	1	1	5	
19	Property Economics / Urban Land Economics	0	1	1	0	1	3	At UP part of PD
20	Property Environment	0	0	0	0	1	1	
21	Property Finance	0	1	1	0	0	2	At UP part of PD
22	Property Investment / Property Investment & Portfolio Analysis	0	0	1	1	1	3	
23	Property Law / Law for the Property Economist	0	1	1	0	1	3	At UP part of PD
24	Property Management / Property Portfolio Management	1	1	1	0	0	3	
25	Property Planning / Urban Planning Practice	1	0	0	0	1	2	
26	Property Valuation	1	1	1	1	1	5	
27	Treatise	1	1	1	1	1	5	
<b>Key:</b> UP: University of Pretoria. UFS: University of Free State. UCT: University of Cape Town. UW: University of Witwatersrand NMMU: Nelson Mandela Metropolitan University. PD: Property Development								

**Table 4.7: Ranking of topics offered in Masters Real Estate curricula in South Africa by university frequency**

Rank	Core subjects offered	No. of institutions Offering topic
1	Property Development / Property Development Planning & Appraisal	5

	Property Valuation	5
	Treatise	5
2	Introduction to Research / Research Methodology	4
3	Property Investment / Property Investment & Portfolio Analysis	3
	Property Law / Law for the Property Economist	3
	Property Management / Property Portfolio Management	3
	Property Economics / Urban Land Economics	3
4	Building Economics.	2
	Construction Contract Law / Construction Contracts, Procedure & Procurement	2
	Facilities Management / Facilities Operations Management / Strategic Asset & Facilities Management	2
	Property & Construction Marketing	2
	Property Finance	2
	Property Planning / Urban Planning Practice	2
5	Applied Game Farm Planning.	1
	Accounting & Project Finance.	1
	Building Energy Analysis and Management.	1
	Construction and Agricultural Engineering.	1
	Corporate Strategy.	1
	Environmental Economics.	1
	Financial Management.	1
	Further Applied Statistics Applied / Introduction to Applied Statistics	1
	Introduction to Theory of Regional Planning / Introductory Studies in Regional Planning	1
	Land Evaluation	1
	Land Valuation and Business Plans	1
	Management Information Systems for Construction & IT Applications	1
	Property Environment	1

## b. Location of real estate curricula

Curricula details in Table 4.4 indicate that all the five Masters Real Estate curricula offered in South Africa were part of the Built Environment programmes and were housed outside the business schools, representing 100% affiliation with the built environment programmes. University departments and schools housing the curricula were: UP: Department of Construction Economics; UW: School of Construction Economics and Management; UFS: Department of Quantity Surveying and Construction Management; UCT: Department of Construction Economics and Management; and NMMU: Construction Management and Quantity Surveying. This arrangement was similar to most programmes in the United Kingdom, Australia, New Zealand and other British Commonwealth countries where broader and unrestricted real estate programmes comprising of both physical and financial aspects of real estate were offered (Black and Rabianski, 2003; and Black, Brown, Diaz, Gibler and Grissom; 2003).

### **c. Student admission requirements**

With regard to admission of students for the courses, the five universities offering the Masters Real Estate curricula in South Africa applied similar requirements for admission even though they disagreed in other areas. The similarity is that all the five universities required applicants to hold Honour's, 4 or 5 year Bachelor's degrees in built environment related disciplines, for example construction management, quantity surveying, project management, civil engineering, architecture and other relevant disciplines to register for the courses. In addition, they required applicants to possess relevant built environment work experience, except for the UFS where this was not a priority (see Table 4.4).

A noteworthy difference with regard to student admission is the diversity of qualifications accepted as pre-requisites. Some universities even considered qualifications unfamiliar with real estate (see Section 4.2.1). For example the UFS considers applicants with Bachelors degrees in agricultural economics, anthropology, applied mathematics, botany, business management, computer information systems, economics, environmental science, forestry, geology, geography, mathematical statistics, psychology, public administration, sociology, statistics, applied mathematics, law, physics, tourism, and sports management. This observation has two implications. Firstly, this proved that real estate is a multidisciplinary field which has links with several other disciplines. This concurs with Roulac (2002) who commented that the challenge facing real estate discipline today was to determine disciplines which were part of real estate and those which were not. Secondly, this indicated that Masters Real Estate degrees in South Africa are used by professionals in other disciplines as a conversational route to become qualified real estate professionals.

### **d. Duration and delivery of courses**

It is noted in Table 4.4 that a minimum of two years was required for students to complete the courses, except at UW and NMMU where full time students could complete the courses in one year. In addition to completing coursework, the students were required to submit a treatise, which was compulsory to be awarded the degrees. Delivery of the courses was arranged in block weeks to enable students who were working and from centres outside the universities to follow the courses (see Table 4.4).

### 4.3.2 Comparison of Masters Real Estate curricula in South Africa and other African countries

Tables 4.8, 4.9, 4.10 and 4.11 contain the results and analysis of three Masters Real Estate curricula, which were identified in other African countries. When these curricula were analysed and compared to the curricula in South Africa, curriculum similarities and differences noted in the analysis of curricula in South Africa merged. These issues are discussed next in this section.

#### a. Names of real estate curricula

Table 4.8 shows names given to curricula in other African countries. Just like in South Africa, universities from other parts of Africa gave different names to Masters Real Estate curricula they were offering. Obafemi Awolowo University (OA) in Nigeria named its programme Master of Science in Estate Management (MSEM). In Kenya, University of Nairobi (UON) identified its degree as Master of Arts in Valuation and Property Management (MAVPM). Ardhi University (AU) in Tanzania named its degree Master of Science in Real Estate (MSRE). When the names of curricula offered in other African countries were compared to the curricula names in South Africa there were differences, except for UP and AU who named their degrees as MSRE. Factors considered in the selection of curriculum names by universities in other African countries were similar to factors identified in South Africa. These included: educational needs of industry and students; nature of course content (curriculum emphasis); marketability of the courses; requirements of professional bodies; requirements of local professionals; local community and society concerns; preferences of academic staff and university administrations; and historical educational influence.

**Table 4.8: Details of Masters Real Estate programmes offered in other countries of Africa**

University, Country & Dept / College	Name of degree	Admission requirements	Duration	Delivery	Total credits
Obafemi Awolowo, Nigeria (Estate Management)	MSEM	.At least relevant second class honours degree .Work experience	12 months & treatise	1 week block release	24 course units
Nairobi, Kenya	MAVPM	.At least relevant	2 yrs & treatise	Full time	900 hours



(Land Development)		second class honours degree .Work experience			
Ardhi, Tanzania (College of Lands and Architectural Studies)	MSRE	.At least second class relevant good bachelors degree	2 yrs & treatise	Full time & Part time	40
<b>Key:</b> MPLE: Master of Philosophy in Land Management MSEM: Master of Science in Estate Management MAVPM: Master of Arts in Valuation and Property Management MSRE: Master of Science in Real Estate					

Sources: Real Estate Study Guides Universities of Ardhi, Nairobi, and Obafemi Awolowo (2009)

### b. Diversity of real estate topics

In Table 4.9 it is shown that real estate topics offered in the three Masters Real Estate curricula exhibited differences, although there were a few similarities. To illustrate the diversity of topics offered in the curricula of other African countries, the topics were sorted in Table 4.10 by university. In total 22 core real estate topics were offered in other African countries. The Table reveals topic diversity by showing universities offering a topic and those not offering a particular topic. In Table 4.11 it is shown that 20 out of 22 topics were not offered by all the three universities, which represents 91% disagreement on course offerings. These topics include: Arbitration and Conflict Management in Real Property; Advanced Quantitative Techniques in Planning; Business Management; Risk Management and Loss Adjustment; and Valuation of Equipment, Furniture and Fittings. Some topics normally expected in a real estate curriculum were also not presented by all the three universities. For example: Property Development, Property Investment, Property Management, Property Finance, and Property Marketing. The variation of real estate topics in the curricula could reflect differences in the educational needs of local industries and communities the universities intended to serve. Figure 4.3 shows differences of some common course subjects offered in the curricula in other African countries based on course subject percentages in the curricula.

When topics offered in other African countries were compared to topics offered in the curricula in South Africa, it was noted again that there were differences, even though similarities were observed. Table 4.12 shows that 11 out of 22 topics offered in other African countries were not offered in South Africa, representing 50% disagreement on course

offerings. Some of these topics include: Valuation of Natural Resources, and Land Management. South Africa is more urbanised and developed than the other African countries. Real estate professionals in other African countries are likely to encounter more rural real estate issues than real estate professionals in South Africa because of urbanisation and economic development differences. This could have influenced differences in topic selection by considering issues related to rural land use in the curricula in other African countries. The diversity of real estate topics in other African countries and their differences with topics in South Africa further supported the claim made by Epley (1996); and Black and Rabianski (2003) that there was yet no general consensus on the body of knowledge with regard to the area of teaching and research in real estate.

### **c. Common real estate topics**

Despite the differences in real estate topics offered in the three curricula in other African countries, few common topics were noticed. Table 4.11 indicates that Property Valuation and Treatise was offered by all the three universities. Two out of the three universities also offered: Environmental Management / Environmental Impact Assessment; Land Resources Management / Land Management; Property Development; Property Investment; Property Management; and Research Methodology.

When the curricula offered in other African countries were compared with curricula offered in South Africa, it was noted that they agreed on some common topics which were expected in a real estate curriculum. Results in Table 4.12 show that 11 out of 22 topics offered in other African countries were also offered in South Africa, which represents 50% agreement on course offerings. These course subjects included: Property Development, Property Management, Property Valuation, Property Investment, Property Finance, Property Marketing, Property Economics, Financial Management, and Research Methodology. In addition, students were required to complete treatise in order to obtain the degrees in all the programmes. This observation supports the remarks made by Epley (1996) and Black and Rabianski (2003) that common elements were noticeable in most real estate curricula despite the disagreements.

### **d. Percentages of course subjects**

Tables 4.5 and 4.9 compare the differences in percentages of course subject credits in the curricula offered in South Africa and other African countries. The differences in percentages of credits allocated to common real estate topics in the different curricula in Africa could indicate the relative importance attached by real estate educators to the subjects with regard to real estate needs of national and local industries in their different countries. For example, UP in South Africa allocated 17.4% of total credit hours to Property Development while AU in Tanzania allocated 7.5% to the same subject in its curriculum. This difference between the curricula from these countries could indicate that property development as a real estate activity was a major activity in the real estate industry served by UP than the AU. In this context, the differences in percentages allocated to common real estate topics in different countries could signal differences in sizes and needs of real estate industries. Factors responsible for differences in sizes of real estate industries and real estate needs in different countries include: differences in demographic factors, credit availability, income levels, level of economic development, land issues, legal systems, culture, and political influences.

#### e. Course credit allocation systems

Tables 4.5 and 4.9 and Figures 4.2 and 4.4 exhibits and illustrate different credit allocation systems used by the eight universities in Africa for the curricula. The results show that in Africa different credit allocation systems were used for the Masters Real Estate curricula. Again, lack of uniformity in credit allocation systems used by the different universities in Africa created a major problem when trying to compare and analyse the different curricula.

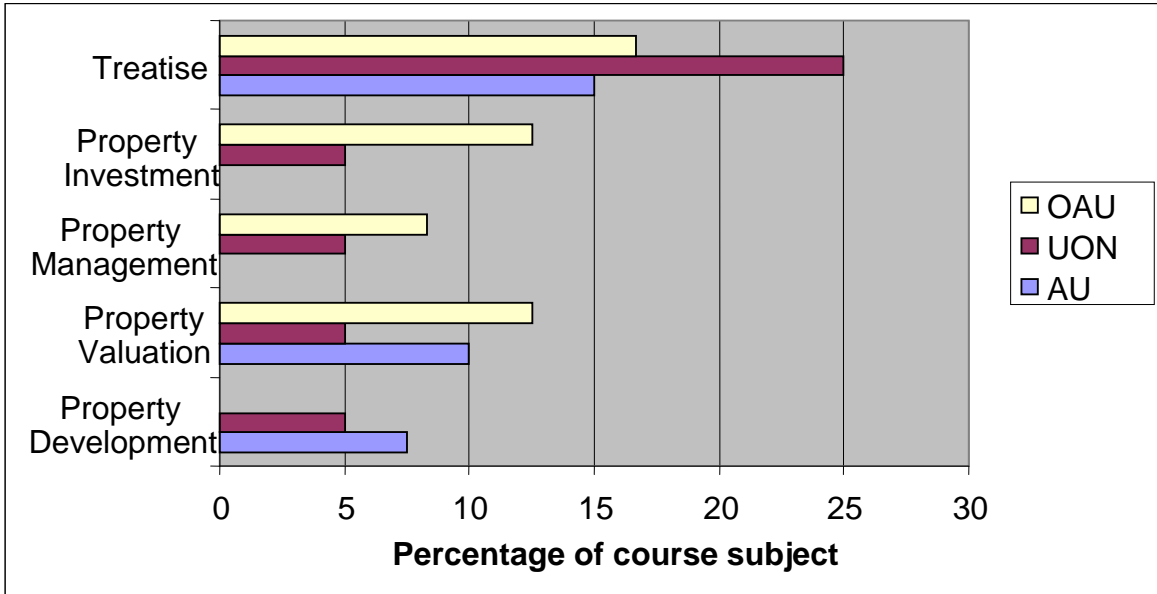
**Table 4.9: Percentages of course subjects offered in Masters Real Estate curricula in other countries of Africa**

University & Degree	Core subjects offered	Credits allocated	% of subject in course
Ardhi: (former University College of Lands & Architectural Studies): (Master of Science in Real Estate)	Comparative Land Law.	2	5
	Business Management.	3	7.5
	Property Development and Finance.	3	7.5
	Land Resources Management.	3	7.5
	Real Estate Economics.	2	5
	Environmental Management.	2	5
	Advanced Valuation.	4	10
	Land Administration Casework.	3	7.5
	Research Methodology.	3	7.5
	3 Elective Subjects.	9	22.5
Treatise.	6	15	

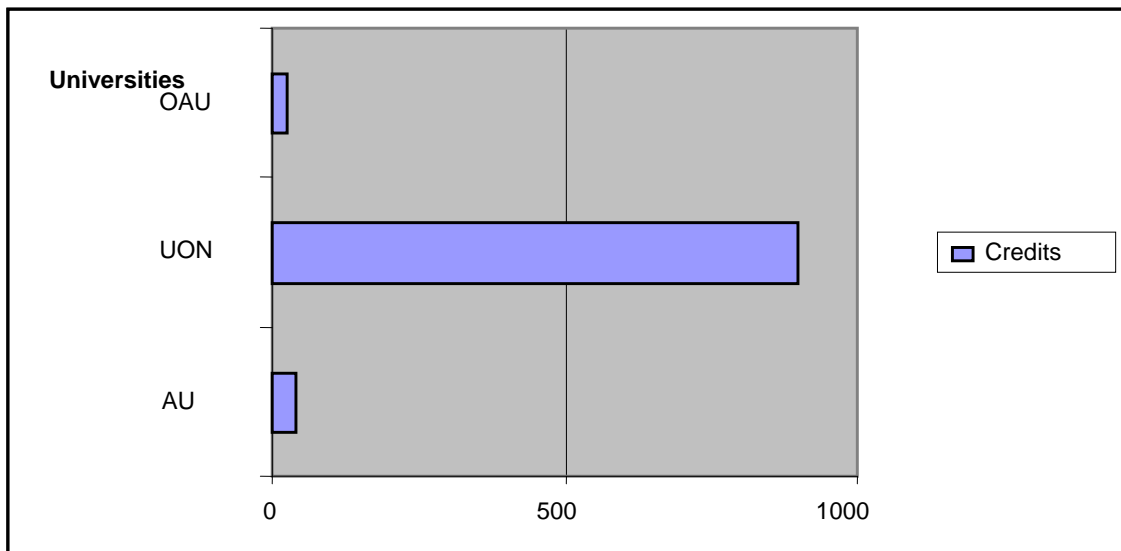
	Total	40	100
Nairobi: Master of Arts in Valuation and Property Management	Property Development.	45	5
	Computer Application in Valuation and Property Mgt.	45	5
	Urban Economics and Management.	45	5
	Land Management.	45	5
	Valuation of Natural Resources.	45	5
	Financial Management in Real Estate.	45	5
	Property Management.	45	5
	Property Portfolio Investment.	45	5
	Environmental Impact Assessment.	45	5
	Property Agency and Marketing.	45	5
	Valuation of Equipment, Furniture and Fittings.	45	5
	Risk Management and Loss Adjustment.	45	5
	Arbitration and Conflict Management in Real Property.	45	5
	Professional Practice.	45	5
	Research Methods.	45	5
	Treatise.	225	25
Total	900	100	
Obafemi Awolowo: Master of Science in Estate Management	Advanced Valuation, Feasibility and Viability Appraisals.	3	12.5
	Management of Landed Property.	2	8.3
	Decision and Investment Theory Applied to Landed Property.	3	12.5
	Advanced Quantitative Techniques in Planning.	3	12.5
	3 Electives.	9	37.5
	Treatise.	4	16.7
Total	24	100	

Sources: Real Estate Study Guides Universities of Ardhi, Nairobi, and Obafemi Awolowo (2009)

**Figure 4.3: Comparison of percentages of some common course subjects offered in Masters Real Estate curricula in other African countries**



**Figure 4.4 Comparison of total credits allocated to Masters Real Estate curricula offered in other African countries**



**f. Location of real estate curricula**

Table 4.8 shows the college and departments housing Masters Real Estate curricula in other African countries. These departments and college are: Department of Estate Management at OA in Nigeria; Department of Land Development at UON in Kenya; and AU in Tanzania. Similar to South Africa, Masters Real Estate programmes in other African countries were housed outside the business schools and were part of the Built Environment programmes.

### **g. Student admission requirements**

Table 4.8 shows student admission requirements for Masters Real Estate programmes offered in other African countries. Similar to universities in South Africa, the universities in other African countries wanted applicants with relevant good Bachelor’s degrees in built environment related disciplines. Except for AU, the other two universities also required the applicants to have some relevant work experience in a relevant profession. Again, just like with universities in South Africa, students with qualifications from other disciplines outside real estate were also considered for admission into real estate programmes in the other African countries.

### **h. Duration and delivery of courses**

Table 4.8 shows curriculum details, including duration and delivery methods for Masters Real Estate curricula in other African countries. Duration to complete degrees in other African countries was similar to programmes in South Africa. This ranged from one year to two years. Two of the universities (UON and AU) required students a minimum of two years to complete the degrees, except for OA which required a minimum of twelve months. UON and AU offered their programmes on full time basis while OA used the block release system to implement their programme. In South Africa similar course delivery methods existed depending on circumstances.

**Table 4.10: Topics offered in Masters Real Estate curricula in other countries of Africa by university**

	Core subjects offered	University offering			Total	Comment
		UON	OA	AU		



1	Advanced Valuation / Advanced Valuation, Feasibility & Viability Appraisals	1	1	1	3	At UON part of PD
2	Arbitration & Conflict Management in Real Property	1	0	0	1	
3	Advanced Quantitative Techniques in Planning	0	1	0	1	
4	Business Management	0	0	1	1	
5	Comparative Land Law	0	0	1	1	
6	Computer Application in Valuation & Property Management	1	0	0	1	
7	Environmental Management / Environment Impact Assessment	1	0	1	2	
8	Financial Management in Real Estate	1	0	0	1	
9	Land Resources Management / Land Administration casework / Land Management	1	0	1	2	
10	Property Development	1	0	1	2	
11	Property Finance	0	0	1	1	
12	Property Portfolio Investment / Decision & Investment Theory Applied to Landed Property	1	1	0	2	
13	Property Agency & Marketing	1	0	0	1	
14	Property Management / Management of Landed Property	1	1	0	2	
15	Professional Practice	1	0	0	1	
16	Risk Management & Loss Adjustment	1	0	0	1	
17	Real Estate Economics	0	0	1	1	
18	Research Methodology / Research Methods	1	0	1	2	
19	Treatise	1	1	1	3	
20	Urban Economics & Management	1	0	0	1	
21	Valuation of Natural Resources	1	0	0	1	
22	Valuation of Equipment, Furniture & Fittings	1	0	0	1	
<b>Key:</b> UON: University of Nairobi. OA: Obafemi Awolowo University AU: Ardhi University. PD: Property Development						

**Table 4.11: Ranking of topics offered in Masters Real Estate curricula in other countries of Africa by university frequency**

Rank	Core subjects offered	No. of institutions offering topic
1	Advanced Valuation / Advanced Valuation, Feasibility & Viability Appraisals	3
	Treatise	3
2	Environmental Management / Environment Impact Assessment	2

	Land Resources Management / Land Administration casework / Land Management	2
	Property Development	2
	Property Portfolio Investment / Decision & Investment Theory Applied to Landed Property	2
	Property Management / Management of Landed Property	2
	Research Methodology / Research Methods	2
3	Arbitration & Conflict Management in Real Property	1
	Advanced Quantitative Techniques in Planning	1
	Business Management	1
	Comparative Land Law	1
	Computer Application in Valuation & Property Management	1
	Financial Management in Real Estate	1
	Property Finance	1
	Property Agency & Marketing	1
	Professional Practice	1
	Risk Management & Loss Adjustment	1
	Real Estate Economics	1
	Urban Economics & Management	1
	Valuation of Natural Resources	1
	Valuation of Equipment, Furniture & Fittings	1

**Table 4.12: Comparison of Masters Real Estate topics offered in South Africa and other African countries**

	Core Masters Real Estate topics offered in other African countries	Topics offered in South Africa	Comments
1	Advanced Valuation / Advanced Valuation, Feasibility & Viability Appraisals	1	
2	Arbitration & Conflict Management in Real Property	0	
3	Advanced Quantitative Techniques in Planning	0	
4	Business Management	0	
5	Comparative Land Law	0	
6	Computer Application in Valuation & Property Management	0	Subtopic in SA
7	Environmental Management / Environment Impact Assessment	0	Subtopic or elective in SA
8	Financial Management in Real Estate	1	
9	Land Resources Management / Land Administration casework / Land Management	0	
10	Property Development	1	
11	Property Finance	1	
12	Property Portfolio Investment / Decision & Investment Theory Applied to Landed Property	1	
13	Property Agency & Marketing	1	
14	Property Management / Management of Landed Property	1	
15	Professional Practice	0	Elective in SA
16	Risk Management & Loss Adjustment	0	Subtopic in SA
17	Real Estate Economics	1	
18	Research Methodology / Research Methods	1	
19	Treatise	1	
20	Urban Economics & Management	1	
21	Valuation of Natural Resources	0	
22	Valuation of Equipment, Furniture & Fittings	0	
Total common topics		11	

#### 4.3.3 Comparison of Masters Real Estate curricula in South Africa and other continents

Representative Masters Real Estate curricula selected from other continents (i.e. Europe, North America, Asia, and the Pacific-Rim) to be compared with curricula in South Africa and



their course contents are given in Table 4.3 and Appendix D, respectively. Key issues which were identified in their curricula comparison are discussed in this section.

#### **a. Names of real estate curricula**

In Tables 4.1, 4.3 and Appendix E names given to real estate curricula and topics in South Africa and other continents are shown. When the names “real estate” and “property” are compared, it is noted that in totality “real estate” was more popular in USA than in South Africa, UK and other British Commonwealth countries to describe real estate programmes and topics. This observation agrees with Baum and Lizieri (2002) who noted that “property” is more common than “real estate” in UK and other British Commonwealth countries like Australia and New Zealand. However, “real estate” is becoming more prevalent in education worldwide than “property” (Baum and Lizieri, 2002). This is proven by gaining popularity of the name “real estate” in other countries like Belgium, Netherlands, Singapore, Hong Kong, and even in the UK curricula.

#### **b. Diversity of real estate topics**

Masters Real Estate curricula offered in other continents (i.e. North America, Europe, Asia, and the Pacific-Rim) exhibited differences, even though they had some common course offerings. To show the diversity of topics offered in these continents, topics were sorted by university in a relevant region or country in Tables 4.14, 4.17, 4.20, 4.23, and 4.26. The Tables show that 29, 28, 9, 17, and 19 core real estate topics were offered in USA; UK; Belgium and Netherlands; Singapore and Hong Kong; and the Pacific-Rim by the selected universities. The diversity of topics in the curricula offered in these countries is illustrated in the Tables by showing universities offering a topic and those not offering a specific topic.

In Table 4.15 results indicate that 28 out of 29 topics were not offered by all the seven universities selected in USA. This represents 96.6% disagreement on real estate topic offerings in the USA. The topics which were not offered by all universities include: Advanced Finance and Managerial Decision Making; Capital Markets; Design Issues; Economics; Land Use Controls; and Real Estate Construction Technology. Surprisingly, even other topics normally expected in a real estate curriculum were not offered by all the seven

universities. These topics include: Real Estate Investment; Real Estate Law; Real Estate Development; and Real Estate Valuation / Appraisal.

Results in Table 4.18 reveal that in UK, 26 out of 28 topics were not presented by all the seven universities selected, representing 92.9% disagreement on topic offerings. Examples of topics which were not offered by all universities in UK were: Building Technology; Construction Project Management; and Corporate Strategy in Real Estate. In UK it was also observed that other topics expected in a real estate curriculum were not offered by all the seven universities. These topics include: Property Investment; Property Management; Property Finance; Property Economics; Property Development; and Property Marketing.

In other European countries (i.e. Belgium and Netherlands), diversity of real estate topics was equally noted. Table 4.21 reveals that 5 out of 9 core topics were not offered by both Universities of Antwerp and Amsterdam, representing 55.6%. Topics not offered by the two universities include: Development Process; Portfolio Analysis; Real Estate Economics; and Real Estate Technology.

Real estate topics offered by two universities selected in Asia also differed. Table 4.24 indicates that 15 out of 17 core topics were not offered by both National University of Singapore and University of Hong Kong. This variation represents 88.2% disagreement on topic offerings. Examples of topics not offered by the two universities were: Capital Markets; Corporate Real Estate; International Real Estate; Law for Real Estate and Construction Industry; Real Estate Management; and Real Estate Development.

When topics offered by universities in the other continents were compared to topics offered in South Africa, it was equally observed that there were differences in the topics. Results in Table 4.16 show that 19 out of 29 topics offered in USA were not presented in South Africa. Some of these topics included: Advanced Finance and Managerial Decision Making; and International Real Estate. In UK, 14 out of 28 topics were not offered in South Africa (see Table 4.19). Table 4.22, shows that 4 out of 9 topics offered in Belgium and Netherlands were not offered in South Africa. Furthermore, 9 out of 17 topics in Singapore and Hong Kong were not presented in South Africa (see Table 4.25). Finally, Table 4.28 shows that in Australia and New Zealand, 7 out of 19 topics were not offered in South Africa. However, in Tables 4.16, 4.19, 4.22, 4.25 and 4.28 it is revealed that closer scrutiny of some topics offered

in other continents but not in South Africa were presented as sub-topics in some curricula in South Africa. This issue complicates curriculum analysis and necessitates continued research in the area to thoroughly understand content of real estate curricula offered in the world. The diversity of real estate topics offered in other continents and their differences with topics in South Africa confirms the claim made by Black and Rabianski (2003) that there was yet no general consensus on real estate body of knowledge even from the global perspective.

### **c. Common real estate topics**

Although there were differences in real estate topics offered in other continents and South Africa, some common course offerings exist. Results in Table 4.15 revealed that in the USA, Real Estate Finance and Real Estate Investment were the most common topics for being offered by seven and six universities, respectively. These statistics agreed with Schulte and Schulte-Daxboek (2003); and Galuppo and Worzala (2004), who commented that real estate education in USA was more focused towards “finance and investment”. Real Estate Law and Real Estate Development came third for being offered by five universities. Table 4.18 indicates that Property Valuation and Property Law were most common topics in UK for being offered by all the seven universities. Second common topic in UK was Real Estate Investment for being presented at six universities. Property Management; Property Finance; and Property Research came third for being offered by five of the selected universities. In Belgium and Netherlands the most common topics were Real Estate Markets; Real Estate Management; Real Estate Valuation; and Real Estate Investment for being offered by both Universities of Antwerp and Amsterdam (see Table 4.21). Table 4.24 shows that Real Estate Investment and Real Estate Economics were the most common topics in Singapore and Hong Kong. Finally, in Table 4.27 it is noted that in Australia and New Zealand, Property Management and Property Development were the most common topics for being offered by four universities. Property Marketing; Property Valuation; and Property Investment came second for being presented by three of the four universities selected in these countries.

When real estate topics offered in South Africa were compared with topics offered in the other continents, it was also observed that they agreed on several topics in the curricula. In Table 4.16 it is noted that 10 out of 29 topics offered in USA were offered in South Africa. Table 4.19 shows that 14 out 28 topics offered in UK were offered in South Africa. In Belgium and Netherlands, 5 out of 9 topics were offered in South Africa (see Table 4.22). Table 4.25 indicates that 8 out of 17 topics offered in Singapore and Hong Kong were offered

in South Africa. 12 topics out of 19 in Australia and New Zealand were also offered in South Africa (see Table 4.28). These statistics have proven that postgraduate real estate curricula in South Africa were comparable internationally in terms of some common topics expected in a real estate curriculum. The observation further agrees with the study by Black and Rabianski (2003) that despite the disagreements in real estate course offerings there were some common real estate topics in the world.

#### **d. Location of real estate curricula**

In Table 4.13 colleges, faculties, schools, and departments housing Masters Real Estate curricula offered in the other continents are given. In USA, the selected seven Masters Real Estate programmes were housed in the Business Schools, where real estate courses were taught together with finance programmes. In UK, Singapore, Hong Kong, Australia, and New Zealand, and South Africa most of the curricula were housed together with other Built Environment programmes. The results on the location of real estate curricula concur with the observations made by Lahey and Webb (1987); and Black and Rabinski (2003).

#### **e. Course credit allocation systems**

Credit hours allocated to Masters Real Estate curricula offered in the other continents are shown in Table 4.13. The results indicate that just like in South Africa, universities offering the courses in the other continents followed different credit allocation systems for the courses. As noted earlier, lack of uniformity in credit allocation systems created a major problem when attempting to compare and analyse the different curricula.

#### **f. Duration and delivery of courses**

Table 4.13 shows that the duration for students to complete Masters in Real Estate programmes at the universities in other continents ranged from one year to two and half years. This was comparable to duration taken by students in South Africa depending on whether student course participation is on full time or part time basis. Table 4.13 also shows that popular methods for the delivery of curricula in the other continents were full time and part time arrangements. Part time arrangement was comparable to the block release system

which was popular in South Africa in that it allowed students who were employed to easily attend the courses.

**g. Student admission requirements**

It is noted in Table 4.13 that universities offering Masters Real Estate programmes in North America, Europe, Asia and the Pacific-Rim required applicants to hold a relevant good first degree to be accepted for entry into the programmes. In addition, some universities in these continents required applicants to have relevant work experience in order to be admitted. These student admission requirements were similar to requirements in South Africa.

**Table 4.13: Details of selected Masters Real Estate programmes in North America, Europe, Asia, and the Pacific-Rim**

University & School, College or Dept	Name of degree	Admission requirements	Duration	Credits	Comments
<i>North America</i>					
USA					
John Hopkins (School of Business)	MSRE	Relevant good first degree	1 yr full-time	40	
New York (School of Continuing &	MSRE	Relevant good first degree	1.5 yrs full-time, 2.5 yrs	42	



Professional Studies )			part-time		
Pennsylvania State (College of Business)	MSRE	Relevant good first degree	2 yrs full- time		
San Diego (School of Business Administration)	MSRE	Relevant good first degree	1 yr	32	
George State (College of Business)	MSRE	Relevant good first degree	1.5 yrs full- time	36	RICS accredited
Texas at Arlington (Dept of Finance & Real Estate)	MSRE	Relevant good first degree	1 yr full- time	36	
Florida (College of Business Administration)	MSRE	Relevant good first degree	1 yr full- time	34	
<b>Europe</b>					
<b>UK</b>					
Reading (School of Construction Management & Engineering)	MSRE	Relevant good first degree & work experience	1 yr full- time	180	RICS accredited
Ulster (School of the Built Environment)	MSRE	Relevant good first degree	1 yr full- time	300	RICS accredited
Aberdeen (Business School)	MSP	Relevant good first degree	1 yr full- time	190	RICS accredited
Central England in Birmingham (Faculty of the Built Environment)	MSREM	Relevant good first degree	1 yr full- time, 2 yrs part-time	180	RICS accredited
Kingston (School of Surveying)	MSRE	Relevant good first degree & work experience	2 yrs part- time	12 modules	RICS accredited
London South Bank (Faculty of Engineering, Science & Built Environment)	MSEM	Relevant good first degree & work experience	1 yr full- time, 2 yrs part-time		RICS accredited
West of England, Bristol (Faculty of the Built Environment)	MSREM	Relevant good first degree & work experience	1 yr full- time, 2 yrs part-time	8 modules	
<b>Netherlands</b>					
Amsterdam (School of Real Estate)	MRE	Relevant good first degree & work experience	2 yrs part- time		RICS accredited
<b>Belgium</b>					
Antwerp (Management School)	MRE	Relevant good first degree & work experience	2 yrs part- time	300 hrs	

**Table 4.13 (continued): Details of selected Masters Real Estate curricula in North America, Europe, Asia, and the Pacific-Rim**

University & School, College or Dept	Name of degree	Admission requirements	Duration	Credits	Comments
<b>Asia</b>					
<b>Singapore</b>					
National University of Singapore (Dept of Real Estate)	MSRE	Relevant good first degree	1 yr full- time, 1.5 yrs part-time	40	RICS accredited
<b>Hong Kong</b>					
Hong Kong	MSRE	Relevant good	1 yr full-	9	



(Dept of Real Estate & Construction)		first degree	time, 2 yrs part-time	modules	
<b>Pacific-Rim</b>					
<b>Australia</b>					
Curtin (Business School)	MP	Relevant good first degree & work experience	1.5 yrs full-time	100	
Melbourne (Faculty of Architecture, Building & Planning)	MP	Relevant good first degree & work experience	1 yr full-time, 2 yrs part-time	100	
<b>New Zealand</b>					
Auckland (Business School)	MP	Relevant good first degree	2 yrs full-time, 4 yrs part-time	28 points	
Lincoln (Applied Management & Computing Division)	MPS	Relevant good first degree	1 yr full-time	1000 hrs	

Sources: Directory of Real Estate Programs, Urban Land Institute (2005) and RICS Prospectus of Surveying Education (2005), and university websites

**Table 4.14: Topics offered in Masters Real Estate curricula in the USA by university**

	Core subjects offered	University offering							Total
		JH	NY	SD	PS	GS	TA	F	
1	Advanced Finance and Managerial Decision Making	0	1	0	0	0	0	0	1
2	Accounting / Managerial Accounting for Developers and Investors	1	0	1	0	0	0	0	2
3	Capital Markets	1	0	0	0	0	0	0	1
4	Design Issues	1	0	0	0	0	0	0	1
5	Economics	0	0	1	0	0	0	0	1
6	GIS / Location Analysis	0	0	0	0	0	0	1	1
7	International Real Estate	0	1	0	1	0	0	0	2



8	Introduction to Real Estate	0	0	0	0	0	0	1	1
9	Land Use Controls	0	0	0	0	1	0	0	1
10	Micro Computer Applications	0	0	0	0	1	0	0	1
11	Management	0	0	1	0	0	0	0	1
12	Public Equity & Debt Markets	0	1	0	0	0	0	0	1
13	Principles of Real Estate	0	0	1	0	0	0	0	1
14	Planning	0	0	1	0	0	0	0	1
15	Quantitative Analysis	0	0	0	0	0	0	1	1
16	Real Estate Enterprise	1	0	0	0	0	0	0	1
17	Real Estate Construction Technology	1	0	0	0	0	0	0	1
18	Real Estate Finance / Primary Mortgage Markets & Institutions / Secondary Mortgage Markets & Institutions	1	1	1	1	1	1	1	7
19	Real Estate Law / Regulation of Real Estate / Legal Issues in Real Estate / Law of Real Estate Transactions	1	0	1	1	1	0	1	5
20	Real Estate Analysis	0	1	0	0	0	0	1	2
21	Real Estate Investment / Investment Property Analysis / Investment Analysis	0	1	1	1	1	1	1	6
22	Real Estate Valuation / Valuation & Analysis / Appraisal	0	1	1	1	1	0	0	4
23	Real Estate & Portfolio Management / Asset Management	0	1	0	1	0	0	0	2
24	Real Estate Market Analysis / Real Estate Market and Transaction Analysis / Market Analysis & Site Selection / Demand Analysis for a Specific Property & Location / Land Market Analysis	1	0	1	0	1	1	1	5
25	Real Estate Development / Analysis Techniques in Real Estate Development	1	1	0	0	1	1	1	5
26	Real Estate portfolios & Securities	0	0	0	0	0	0	1	1
27	Statistics	0	0	1	0	0	0	0	1
28	Urban Analysis	1	0	0	0	0	0	0	1
29	Urban Land Economics	0	0	0	0	1	0	0	1
<b>Key:</b> JH: Johns Hopkins University. NY: New York University. SD: University of San Diego. PS: Pennsylvania State University. GS: George State University. F: University of Florida TA: University of Texas at Arlington									

**Table 4.15: Ranking of topics offered in Masters Real Estate curricula in the USA by university frequency**

Rank	Core subjects offered	No. of institutions offering topic
1	Real Estate Finance / Primary Mortgage Markets & Institutions / Secondary Mortgage Markets & Institutions	7
2	Real Estate Investment / Investment Property Analysis / Investment Analysis	6
3	Real Estate Law / Regulation of Real Estate / Legal Issues in Real Estate / Law of Real Estate Transactions	5
	Real Estate Market Analysis / Real Estate Market & Transaction Analysis / Market Analysis & Site Selection / Demand Analysis for a Specific Property Location / Land Market Analysis	5
	Real Estate Development / Analysis Techniques in Real Estate Development	5





4	Real Estate Valuation / Valuation & Analysis / Appraisal	4
5	Real Estate Analysis	2
	Accounting / Managerial Accounting for Developers and Investors	2
	International Real Estate	2
	Real Estate & Portfolio Management / Asset Management	2
6	Advanced Finance and Managerial Decision Making	1
	Capital Markets	1
	Design Issues	1
	Economics	1
	GIS / Location Analysis	1
	Introduction to Real Estate	1
	Land Use Controls	1
	Micro Computer Applications	1
	Management	1
	Public Equity & Debt Markets	1
	Principles of Real Estate	1
	Planning	1
	Quantitative Analysis	1
	Real Estate Enterprise	1
	Real Estate Construction Technology	1
	Real Estate portfolios & Securities	1
	Statistics	1
	Urban Analysis	1
	Urban Land Economics	1

**Table 4.16: Comparison of Masters Real Estate topics offered in South Africa and USA**

	<b>Core Masters Real Estate topics offered in USA</b>	<b>Topics offered in South Africa</b>	<b>Comments</b>
1	Advanced Finance and Managerial Decision Making	0	
2	Accounting / Managerial Accounting for Developers & Investors	1	
3	Capital Markets	0	Subtopic in SA
4	Design Issues	0	Subtopic in SA
5	Economics	0	
6	GIS / Location Analysis	0	Subtopic in SA



7	International Real Estate	0	
8	Introduction to Real Estate	0	
9	Land Use Controls	0	Subtopic in SA
10	Micro Computer Applications	0	Subtopic or elective in SA
11	Management	0	
12	Public Equity & Debt Markets	0	
13	Principles of Real Estate	0	
14	Planning	0	
15	Quantitative Analysis	0	
16	Real Estate Enterprise	0	
17	Real Estate Construction Technology	0	Subtopic or elective in SA
18	Real Estate Finance / Primary Mortgage Markets & Institutions / Secondary Mortgage Markets & Institutions	1	
19	Real Estate Law / Regulation of Real Estate / Legal Issues in Real Estate / Law of Real Estate Transactions	1	
20	Real Estate Analysis	0	
21	Real Estate Investment / Investment Property Analysis / Investment Analysis	1	
22	Real Estate Valuation / Valuation & Analysis / Appraisal	1	
23	Real Estate & Portfolio Management / Asset Management	1	
24	Real Estate Market Analysis / Real Estate Market & Transaction Analysis / Market Analysis & Site Selection / Demand Analysis for a Specific Property & Location / Land Market Analysis	1	
25	Real Estate Development / Analysis Techniques in Real Estate Development	1	
26	Real Estate Portfolios & Securities	0	Subtopic in SA
27	Statistics	1	
28	Urban Analysis	0	
29	Urban Land Economics	1	
Total common topics		10	

**Table 4.17: Topics offered in Masters Real Estate curricula in the UK by university**

	Core subjects offered	University offering							Total
		UR	UU	UA	CE	K	LSB	WE	
1	Business Management & Finance	0	1	0	0	0	0	0	1
2	Building Technology	0	0	1	0	0	0	0	1
3	Capital Project Analysis & Investment	1	0	0	0	0	0	0	1
4	Construction Project Management	0	1	0	0	0	0	0	1
5	Corporate Real Estate	0	0	1	0	0	0	0	1
6	Construction	0	0	0	1	0	1	0	2
7	Corporate Management	0	0	0	0	0	1	0	1
8	Corporate Strategy in Real Estate	0	0	0	0	1	0	0	1
9	European Real Estate Practice	0	0	0	0	1	0	0	1
10	Facilities Management	0	0	0	0	1	0	0	1
11	International Real Estate Markets / International	1	1	1	0	0	0	0	3



	Property / Global Real Estate Market Analysis								
12	Organisational Analysis & Change	0	0	0	0	0	0	1	1
13	Property Valuation / Valuation Principles / Advanced Valuation / Real Estate Appraisal & Valuation / Statutory Valuations	1	1	1	1	1	1	1	7
14	Property Management / Maintenance Management / Asset Management / Real Estate Portfolio & Risk Management / Corporate Asset Management	1	1	0	1	1	0	1	5
15	Property Finance / Real Estate Finance & Funding / Real Estate Corporate Finance & Funding / Finance for Managers	1	1	0	0	1	1	1	5
16	Property Development / Real Estate Development Appraisal	1	0	0	0	1	1	1	4
17	Property Law / Property Law & Institutions / Law for Property Professionals / Landlord & Tenant Law	1	1	1	1	1	1	1	7
18	Property Investment / Property Use & Investment / Property Investment Appraisal	1	0	1	1	1	1	1	6
19	Property Marketing / Marketing & Practice Development	0	0	0	1	0	1	0	2
20	Property Economics / Land Economics	1	0	1	0	0	1	1	4
21	Property Planning / Planning Practice	0	1	0	1	0	1	1	4
22	Property Research / Research Design Methods / Research / Research for Policy & Practice	0	1	1	0	1	1	1	5
23	Professional Practice	0	0	0	0	0	1	0	1
24	Real Estate Environment	1	0	0	0	0	0	0	1
25	Real Estate Portfolio Analysis	1	0	0	0	0	0	0	1
26	Real Estate Securitisation & Regulatory Environment	0	0	0	0	1	0	0	1
27	Regeneration	0	0	0	0	1	0	0	1
28	Strategic Management	0	0	0	1	0	0	0	1
<b>Key:</b> UR: University of Reading. UU: University of Ulster. UA: University of Aberdeen. CE: University of England in Birmingham. K: University of Kingston. LSB: University of London South Bank. WE: University of West England, Bristol.									

**Table 4.18: Ranking of topics offered in Masters Real Estate curricula in the UK by university frequency**

Rank	Core subjects offered	No. of institutions offering topic
1	Property Valuation / Valuation Principles / Advanced Valuation / Real Estate Appraisal & Valuation / Statutory Valuations	7
	Property Law / Property Law & Institutions / Law for Property Professionals / Landlord & Tenant Law	7
2	Property Investment / Property Use & Investment / Property Investment Appraisal	6
3	Property Management / Maintenance Management / Asset Management / Real Estate Portfolio & Risk Management / Corporate Asset Management	5
	Property Finance / Real Estate Finance & Funding / Real Estate Corporate Finance & Funding / Finance for Managers	5
	Property Research / Research Design Methods / Research for Policy & Practice	5



4	Property Economics / Land Economics	4
	Property Planning / Planning Practice	4
	Property Development / Real Estate Development Appraisal	4
5	International Real Estate Markets / International Property / Global Real Estate Market Analysis	3
6	Construction	2
	Property Marketing / Marketing & Practice Development	2
7	Business Management & Finance	1
	Building Technology	1
	Capital Project Analysis & Investment	1
	Construction Project Management	1
	Corporate Real Estate	1
	Corporate Management	1
	Corporate Strategy in Real Estate	1
	European Real Estate Practice	1
	Facilities Management	1
	Organisational Analysis & Change	1
	Professional Practice	1
	Real Estate Environment	1
	Real Estate Portfolio Analysis	1
	Real Estate Securitisation & Regulatory Environment	1
	Regeneration	1
	Strategic Management	1

**Table 4.19: Comparison of Masters Real Estate topics offered in South Africa and UK**

	Core Masters Real Estate topics offered in UK	Topics offered in South Africa	Comments
1	Business Management & Finance	0	
2	Building Technology	0	Subtopic or elective in SA
3	Capital Project Analysis & Investment	0	Subtopic or elective in SA
4	Construction Project Management	0	Subtopic or elective in SA
5	Corporate Real Estate	0	Subtopic in SA
6	Construction	1	



7	Corporate Management	0	
8	Corporate Strategy in Real Estate	1	
9	European Real Estate Practice	0	
10	Facilities Management	1	
11	International Real Estate Markets / International Property / Global Real Estate Market Analysis	0	
12	Organisational Analysis & Change	0	
13	Property Valuation / Valuation Principles / Advanced Valuation / Real Estate Appraisal & Valuation / Statutory Valuations	1	
14	Property Management / Maintenance Management / Asset Management / Real Estate Portfolio & Risk Management / Corporate Asset Management	1	
15	Property Finance / Real Estate Finance & Funding / Real Estate Corporate Finance & Funding / Finance for Managers	1	
16	Property Development / Real Estate Development Appraisal	1	
17	Property Law / Property Law & Institutions / Law for Property Professionals / Landlord & Tenant Law	1	
18	Property Investment / Property Use & Investment / Property Investment Appraisal	1	
19	Property Marketing / Marketing & Practice Development	1	
20	Property Economics / Land Economics	1	
21	Property Planning / Planning Practice	1	
22	Property Research / Research Design Methods / Research / Research for Policy & Practice	1	
23	Professional Practice	0	Subtopic or elective in SA
24	Real Estate Environment	1	
25	Real Estate Portfolio Analysis	0	Subtopic in SA
26	Real Estate Securitisation & Regulatory Environment	0	Subtopic in SA
27	Regeneration	0	
28	Strategic Management	0	
Total common topics		14	

**Table 4.20: Topics offered in Masters Real Estate curricula in Belgium and Netherlands by university**

	Core subjects offered	University offering		Total
		Antwerp	Amsterdam	
1	Development Process	0	1	1
2	Portfolio Analysis	0	1	1
3	Real Estate Contracts	1	0	1
4	Real Estate Economics	1	0	1
5	Real Estate Markets / Market Analysis	1	1	2
6	Real Estate Management / Real Estate Portfolio Management	1	1	2
7	Real Estate Technology	1	0	1
8	Real Estate Valuation	1	1	2

9	Real Estate Investment / Investment Analysis	1	1	2
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**Table 4.21: Ranking of topics offered in Masters Real Estate curricula in Belgium and Netherlands by university frequency**

Rank	Core subjects offered	No. of institutions offering topic
1	Real Estate Markets / Market Analysis	2
	Real Estate Management / Real Estate Portfolio Management	2
	Real Estate Valuation	2
	Real Estate Investment / Investment Analysis	2
2	Development Process	1
	Portfolio Analysis	1
	Real Estate Contracts	1
	Real Estate Economics	1
	Real Estate Technology	1

**Table 4.22: Comparison of Masters Real Estate topics offered in South Africa, Belgium, and Netherlands**

	Core Masters Real Estate topics offered in Belgium and Netherlands	Topics offered in South Africa	Comments
1	Development Process	0	Subtopic in SA
2	Portfolio Analysis	0	
3	Real Estate Contracts	0	Subtopic in SA
4	Real Estate Economics	1	
5	Real Estate Markets / Market Analysis	1	
6	Real Estate Management / Real Estate Portfolio Management	1	
7	Real Estate Technology	0	
8	Real Estate Valuation	1	
9	Real Estate Investment / Investment Analysis	1	
Total common topics		5	

**Table 4.23: Topics offered in Masters Real Estate curricula in Singapore and Hong Kong by university**

	Core subjects offered	University offering		Total
		Singapore	Hong Kong	
1	Capital Markets	0	1	1
2	Corporate Real Estate	1	0	1
3	Economics for Professionals	0	1	1
4	International Real Estate	1	0	1
5	Law for Real Estate & Construction Industry	0	1	1
6	Legal & Institutional Framework	1	0	1
7	Land Economics	0	1	1
8	Management Theory & Construction Projects	0	1	1
9	Real Estate Investment	1	1	2



10	Real Estate Portfolio Analysis	1	0	1
11	Real Estate Finance	0	1	1
12	Real Estate Economics	1	1	2
13	Real Estate Marketing & Negotiation	1	0	1
14	Real Estate Management	0	1	1
15	Real Estate Development	1	0	1
16	Planning	1	0	1
17	Valuation	1	0	1

**Table 4.24: Ranking of topics offered in Masters Real Estate curricula in Singapore and Hong Kong by university frequency**

Rank	Core subjects offered	No. of institutions offering topic
1	Real Estate Investment	2
	Real Estate Economics	2
2	Capital Markets	1
	Corporate Real Estate	1
	Economics for Professionals	1
	International Real Estate	1
	Law for Real Estate & Construction Industry	1
	Legal & Institutional Framework	1
	Land Economics	1
	Management Theory & Construction Projects	1
	Real Estate Portfolio Analysis	1
	Real Estate Finance	1
	Real Estate Marketing & Negotiation	1
	Real Estate Management	1
	Real Estate Development	1
	Planning	1
	Valuation	1

**Table 4.25: Comparison of Masters Real Estate topics offered in South Africa, Singapore, and Hong Kong**

	Core Masters Real Estate topics offered in Singapore and Hong Kong	Topics offered in South Africa	Comments
1	Capital Markets	0	Subtopic in SA
2	Corporate Real Estate	0	Subtopic in SA
3	Economics for Professionals	0	
4	International Real Estate	0	
5	Law for Real Estate & Construction Industry	1	
6	Legal & Institutional Framework	0	Subtopic in SA
7	Land Economics	0	
8	Management Theory & Construction Projects	0	Subtopic in SA
9	Real Estate Investment	1	
10	Real Estate Portfolio Analysis	0	Subtopic in SA
11	Real Estate Finance	1	
12	Real Estate Economics	1	
13	Real Estate Marketing & Negotiation	1	
14	Real Estate Management	1	



15	Real Estate Development	1	
16	Planning	0	
17	Valuation	1	
Total common topics		8	

**Table 4.26: Topics offered in Masters Real Estate curricula in the Pacific-Rim by university**

	Core subjects offered	University offering				Total
		CUT	UM	UA	LU	
1	Building Economics	0	0	1	0	1
2	Building Services & Operations	0	1	0	0	1
3	Business Valuation	1	0	0	0	1
4	Construction & Building Costs	1	0	0	0	1
5	Corporate Real Estate	0	1	0	0	1
6	Facilities Management	0	1	1	0	2
7	Financial Management	0	0	0	1	1
8	Income Property Analysis	1	0	0	0	1
9	Land Law	1	0	0	0	1
10	Property Management / Asset Management / Property Asset Management	1	1	1	1	4
11	Property Economics	1	0	1	0	2
12	Property Finance	1	0	1	0	2
13	Property Development	1	1	1	1	4
14	Property Marketing / Property Market Analysis	1	0	1	1	3
15	Property Valuation / Property Valuation & Analysis / Valuation Methodology / Statutory Valuation / Valuation Practice	1	1	1	0	3
16	Property Investment / Property Investment & Portfolio Analysis	0	1	1	1	3
17	Property Securitisation	0	1	0	0	1
18	Property Planning	1	0	0	0	1
19	Plant & Machinery Valuation	0	0	1	0	1

**Key:** CUT: Curtin University of Technology (Australia). UM: University of Melbourne (Australia).  
UA: University of Auckland (New Zealand). LU: Lincoln University (New Zealand)

**Table 4.27: Ranking of topics offered in Masters Real Estate curricula in the Pacific-Rim by university frequency**

Rank	Core subjects offered	No. of institutions offering topic
1	Property Management / Asset Management / Property Asset Management	4
	Property Development	4
2	Property Marketing / Property Market Analysis	3
	Property Valuation / Property Valuation & Analysis / Valuation Methodology / Statutory Valuation / Valuation Practice	3
	Property Investment / Property Investment & Portfolio Analysis	3
3	Facilities Management	2
	Property Economics	2
	Property Finance	2
4	Building Economics	1
	Building Services & Operations	1
	Business Valuation	1
	Construction & Building Costs	1
	Corporate Real Estate	1
	Financial Management	1



	Income Property Analysis	1
	Land Law	1
	Property Securitisation	1
	Property Planning	1
	Plant & Machinery Valuation	1

**Table 4.28: Comparison of Masters Real Estate topics offered in South Africa and the Pacific-Rim**

	Core Masters Real Estate topics offered in the Pacific-Rim	Topics offered in South Africa	Comments
1	Building Economics	1	
2	Building Services & Operations	0	Subtopic in SA
3	Business Valuation	0	
4	Construction & Building Costs	1	
5	Corporate Real Estate	0	Subtopic in SA
6	Facilities Management	1	
7	Financial Management	1	
8	Income Property Analysis	0	Subtopic in SA
9	Land Law	0	Subtopic in SA
10	Property Management / Asset Management / Property Asset Management	1	
11	Property Economics	1	
12	Property Finance	1	
13	Property Development	1	
14	Property Marketing / Property Market Analysis	1	
15	Property Valuation / Property Valuation & Analysis / Valuation Methodology / Statutory Valuation / Valuation Practice	1	
16	Property Investment / Property Investment & Portfolio Analysis	1	
17	Property Securitisation	0	Subtopic in SA
18	Property Planning	1	
19	Plant & Machinery Valuation	0	
Total common topics		12	

#### 4.4 Conclusions of the curriculum survey

In this chapter Masters Real Estate curricula offered in South Africa and other parts of the world have thoroughly been compared and assessed. Based on the findings of the survey the following main conclusions are drawn:

##### a. Number of Masters Real Estate curricula

This curriculum survey has shown that in contrast to the USA and UK, relatively few formal postgraduate real estate programmes were offered in South Africa. Only five Masters Real Estate curricula were identified in South Africa as compared to fourteen which were selected in the USA and UK. However, it was observed in the survey that South Africa offered more

Masters Real Estate programmes than other African countries. Only three comprehensive real estate programmes offered by coursework were selected in other African countries. The main contributing factor to differences in numbers of real estate curricula offered in different countries could be differences in levels of economic development and sizes of real estate industries. Countries with smaller real estate industries and who were less developed economically tended to have fewer real estate programmes.

### **b. Names of real estate curricula and topics**

In the survey, it was observed that in South Africa and other parts of the world different names are used to identify real estate curricula and topics. Some of the factors considered by educators and universities in the selection of names for curricula and topics were: educational needs of industry and students; nature of course content (curriculum emphasis); marketability of the courses; requirements of professional bodies; requirements of local professionals; local community and society concerns; preferences of academic staff and university administrations; and historical educational influence. The term “real estate” was more common name for Master’s degrees in the USA. In UK and other British Commonwealth countries including South Africa, “property” was more common. However, it was noted in the survey that in general the name “real estate” was becoming more prevalent in education even in UK. Additionally, in USA the term “program” is used to denote a complete degree and “course” is used to denote a specific topic within that degree while in UK (and also in South Africa), “course” typically refers to the whole degree and the subdivisions of that course might be “subjects”, “units” or “modules” (Baum and Lizieri, 2002).

### **c. Real estate education approaches**

Based on curricula analysis and comparison done, the observation made by Schulte and Schulte-Daxboek (2003) that real estate education in the world was following different approaches was confirmed. By comparison, postgraduate real estate programmes in South Africa were following the “interdisciplinary” and “surveying” approaches to the study of real estate which was practised in Continental Europe and UK (and other countries of the British Commonwealth) in contrast to USA where “investment and finance” approach dominated. Similar to most programmes offered in UK and in other countries, Masters Real Estate programmes offered by Universities of Cape Town and Pretoria in South Africa were

accredited by the RICS confirming meeting of the requirements of the surveying approach to property education by these programmes. These similarities have proven that despite disagreements in course offerings, Masters Real Estate curricula in South Africa were comparable both locally and internationally.

#### **d. Location of real estate courses**

In the study it was observed that Masters Real Estate curricula in South Africa like most curricula in other African countries, UK, Australia, New Zealand and other British Commonwealth countries were housed outside business schools and focused on the built environment, a broader programme which included both physical and financial concepts. In the study it was confirmed that in the USA curricula were primarily housed in business schools where real estate courses were taught together with “finance and investment” courses.

#### **e. Credit hours**

Credit hours for the different Masters Real Estate programmes were investigated. Credit hours indicated the total hours for a degree to be completed by a student. In the survey it was discovered that different universities in the world were using different credit allocation systems, which made curricula analysis and comparisons difficult. The differences in credit hours allocated to the courses reflected differences in university administration systems and real estate industry needs.

#### **f. Real estate topics**

Curricula analysis revealed that postgraduate real estate curricula in South Africa were diverse, even though they possessed common elements in their course offerings. When compared with real estate curricula in other African countries and other continents, it was noted that despite the disagreements on real estate topics, curricula in South Africa possessed a large number of common elements offered in curricula in other parts of the world. The common course offerings noted were: property valuation, property management, property development, property economics, property finance, property investment, property marketing, and property law. Further scrutiny of the curricula showed that similar to curricula

in other African countries and continents, curriculum designers in South Africa considered four main components of a real estate curriculum: legal and public policy; financial; physical and development; and market subjects (Black *et al.*, 1996).

As part of the research cycle for this investigation, curriculum survey assisted in identifying relevant and common Masters Real Estate topics offered in South Africa and other parts of the world which were incorporated in the questionnaire for property industry survey in South Africa (see Part 2 of the questionnaire: Appendix A). These topics are: Building Economics, Building Technology, Construction Contract Law, Corporate Strategy, Environmental Economics and Management, Financial Management, Information Technology, International Real Estate, Property Development, Property Economics, Property Finance, Property Investment, Property Management / Facilities Management, Property Marketing, Property Law, Property Valuation, Property Tax, and Research. A noteworthy observation in the curricula analysis was that International Real Estate as a topic did not appear in any curriculum in South Africa. However, due to the growing importance of real estate education and transactions in the global context the topic was incorporated in the questionnaire for assessment to determine what real estate professionals in South Africa thought about the topic.

To test if real estate topics identified in this curriculum survey were important to real estate professionals in South Africa, it was appropriate to proceed with the property industry survey. This was achieved in the next Chapter.