
PERCEPTIONS OF ACADEMICS ON REAL ESTATE TOPICS IN AFRICA

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Abstract

This paper presents the perceptions of academics on real estate topics offered in Bachelors Real Estate (BRE) curricula in Africa. In order to understand the perceptions of academics on real estate topics, a survey of seven selected BRE curricula offered in different regions of Africa was conducted to determine important real estate topics academics included in the curricula. After analyzing the curricula, sorting and re-grouping the topics: Real estate management, Real estate valuation, Real estate economics, Real estate finance and investment, Real estate development, Real estate law, Real estate planning, Real estate research, Real estate industrial training and Real estate electives emerged to be important topics the academics considered to include in the curricula. The topics are in line with those expected in a real estate curriculum. In addition, results revealed that BRE curricula follow the interdisciplinary approach to real estate education. Findings will encourage universities in Africa and elsewhere to develop comprehensive real estate curricula or improve existing ones to accommodate the interdisciplinary approach and the international perspective of real estate education because of their benefits. The study will also support the harmonization of real estate education, practice, investment and business in Africa, hence contributing towards the economic development of the continent.

Key words: *real estate topics, bachelors real estate curricula, Africa.*

JEL Classification: *L85.*

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1. Introduction

With the advent of the African Union (AU) in 1999, countries on the African continent agreed to work together and accelerate processes of regional integration, cooperation and economic development in order to reduce poverty and unemployment on the continent (AU webpage at www.au.int/en) (accessed 1/2/2020). This magnificent vision has equally encouraged real estate professionals and

businesses from different parts of Africa to practice, invest and transact in real estate in different countries throughout the continent. One piece of evidence related to this is the investment in real estate on the African continent by companies from South Africa that have moved to different countries in order to expand their businesses and markets on the continent, similar to what other international investors and businesses are doing globally (Roulac, 2002). In addition, it is also very common nowadays to see students from different African countries travel to study real estate at different universities on the continent (Ghyoot, 2002; Chikafalimani & Cloete, 2006). Furthermore, just like in other parts of the world, relationships between real estate academics and researchers are on the increase on the African continent through faculty visitation programs, research collaborations, research conferences and meetings (Schulte, 2002). This has necessitated real estate academics in Africa to analyze and compare real estate topics offered at different universities on the continent with the intention of harmonizing topics offered in the curricula. A consensus of topics offered in real estate curricula in Africa will support the development of improved curricula with an international perspective. Such curricula will assist real estate professionals to easily study, practice, invest and transact in real estate in different countries throughout the continent. This study intends to support this initiative by identifying important topics which real estate academics in Africa have included in their curricula, which will in turn support other universities in improving existing or developing new real estate curricula in the future with an international perspective. A point worth noting is that the study will also contribute to global efforts of discovering topics included in real estate curricula (Epley, 1996). More importantly, the study will also support efforts of AU in achieving its vision of regional integration, cooperation and economic development, as well as the reduction of poverty and unemployment by its participation through harmonized and high quality real estate education, practice, investment and business on the African continent.

2. Literature Review

Schulte (2002) reported that internationalization is gaining importance in all sectors of the economy including the real estate sector. As a consequence, internationalization of real estate education has also gained importance. This has become more conspicuous in cases where students have decided to study real estate courses in foreign countries either because no such courses are offered in their countries or merely to gain international exposure in real estate education and transactions (Schulte, 2002). In addition to the globalization of real estate education, there is also an increase in the globalization of real estate transactions being undertaken by investors in different real estate markets of the world (Roulac, 2002). Furthermore, Roulac (2002) noted that, with business enterprise expanding the scope of its geographical concerns, drawing resources from distant markets and selling throughout the world, physical proximity is no longer the primary defining guideline or constraint to access labor and customers. Therefore, it is important today that real estate education conveys the knowledge required for real estate involvement in the global context. Schulte (2002) summarized the reasons behind the current importance of global orientation in real estate education as follows: (a) institutional investors no longer being able to afford to restrict their investments to one country; (b) leading developers having set the trend towards global engagements long ago; (c) banks being forced, through competition and the expanding business portfolio of their customers, to finance real estate internationally; and (d) real estate consultancies and brokers merging across national borders and continents, bundling international know-how and experience in growing entities.

Global orientation of real estate can be achieved by including international aspects into the real estate curriculum and by initiating international exchange programs between the real estate departments of different universities (Roulac, 2002). In addition, Schulte (2002) noted that the international exchange of real estate knowledge was important as the field of real estate education research was a young discipline and many aspects of real estate had not yet been sufficiently investigated. As different countries focus their education and research on different issues, the internationalization of real estate education as turned out to be even more important (Schulte, 2002). In support of this view, Roulac (2002) commented that appreciation for the global context and multiple geographies and levels of concern is fundamental when it comes to effective real estate involvements in the twenty-first century. He argues that the orientation of the majority of participants in real estate is predominantly parochial rather than global. Such an orientation is increasingly vulnerable to miscalculations, disappointment, financial reversal, failure, in a time of globalization

when local outcomes are largely influenced by distant decisions and actions (Friedman, 2000 cited in Roulac, 2002).

Black & Rabianski (1999) attempted to define real estate education from an international perspective by identifying important real estate topics and themes in a global context through a survey of 376 real estate academics and professionals from around the world in order to reflect a worldwide perspective in their findings. The study identified a list of 36 important real estate topics and themes in a global context from the respondents. Some of the real estate topics and concepts which made it on the list are: Real estate portfolio analysis, diversification and management; Analysis of site characteristics; Property market modelling (demand and supply analysis for housing, retail, offices, etc.); Government policy on real estate; and Property rights. Schulte (2002) recommended: Foreign real estate markets, International real estate investment, Globalization of real estate markets, and Comparison of international standards and practices in real estate as other topics that must be considered in a real estate curriculum with an international perspective.

Black, et al. (1996) gave a guideline for topics expected in a comprehensive real estate curriculum in order to adequately prepare students for the real estate industry. They indicated that any comprehensive real estate curriculum should contain the following four main components of real estate topics: Market analysis and valuation, Finance, Legal and public policy, and Physical and development topics. Epley (1996) concluded that common topics found in most real estate curricula included: Real estate principles, Real estate finance, Real estate law, and Real estate valuation.

Of significance, Schulte and Schulte-Daxboek (2003) also differentiated real estate education approaches throughout the world as: (a) the “investment and finance approach; (b) the “surveying approach”; and (c) the “interdisciplinary approach”. The “investment and finance approach” dominates in the USA, and such a curriculum can provide a comprehensive exposure of business, investment and finance to real estate students, with such exposure being very relevant since each property in itself is a business. The “surveying approach”, which is typically used in the UK and other countries of the British Commonwealth, puts much emphasis on the built environment. The “interdisciplinary approach” brings together the multiple perspectives of business management, finance, and the school of the built environment that offers a more balanced and richer course of preparation (Roulac, 2002).

3. Research Method

The main method that was used to determine perceptions of academics on real estate topics and themes in Africa was the analysis of study guides of selected comprehensive Bachelors Real Estate (BRE) curricula offered in Africa. BRE curricula were preferred in the study because they are expected to contain all real estate topics, which prepare students well to enter into the industry as competent real estate professionals. In addition, the study was restricted to BRE curricula offered on the African continent that are taught in English and whose details were easily accessible. Furthermore, depending on the circumstances, preference for selection was given to real estate programmes that are accredited by a local professional body or the Royal Institution of Chartered Surveyors (RICS) as a representative real estate programme for a particular country in Africa. RICS has recently championed the evolution and accreditation of real estate programmes in the world with the aim of standardizing the quality and competence of real estate professionals internationally (Isakson, Rabianski & Schulte, 2003; Chikafalimani, 2018). A World university ranking for a specific university was also considered in the selection of a curriculum from that university wherever necessary.

Through research, seven BRE curricula were identified and selected from the African continent. Thereafter the curricula were analyzed to determine real estate topics, which the academics at universities in Africa included in the curricula to be taught to real estate students. Table 1 contains seven selected BRE curricula offered in Africa that were identified in the study. The universities offering the programmes are: Ardhi University (ARU) in Tanzania, Copperbelt University (CU) in Zambia, Kwame Nkrumah University of Science and Technology (KNUST) in Ghana, Makerere University (MU) in Uganda, Obafemi Aolowo University (OAU) in Nigeria, University of Cape Town (UCT) in South Africa, and University of Nairobi (UN) in Kenya. Appendices 1 to 7 show real estate topics included in BRE curricula that are offered at the selected universities in Africa. It takes students at these selected universities 4 to 5 years to complete the degree programs and graduate. All of the curricula are delivered on a full time basis. As can be noted from Table 1, BRE curricula are offered by

The University of Ardhi in Tanzania and The University of Cape Town in South Africa, both of which are also accredited by the RICS.

Table 1

Selected Bachelors Real Estate curricula in Africa

University, Department and Country	Degree Name	Period	Delivery	Comment
Ardhi University, School of Real Estate Studies, Tanzania	BSc (Real Estate)	4 Years	Full Time Contact	RICS accredited
Copperbelt University, School of the Built Environment, Zambia	BSc (Real Estate)	5 Years	Full Time Contact	
KNUST, Department of Land Economy, Ghana	BSc (Land Economy)	4 Years	Full Time Contact	
Makerere University, Department of Construction Economics and Management, Uganda	BSc (Land Economics)	4 Years	Full Time Contact	
Obafemi Aolowo, Department of Estate Management, Nigeria	BSc (Estate Management)	5 Years	Full Time Contact	
University of Cape Town, Department of Construction Economics and Management, South Africa	BSc (Property Studies)	4 Years	Full Time Contact	RICS accredited
University of Nairobi, Department of Real Estate and Construction Management, Kenya	BSc (Real Estate)	4 Years	Full Time Contact	

Sources: Real Estate Study Guides: ARU, CU, KNUST, MU, OAU, UCT and UN (2020).

4. Results, Analysis and Discussion

The results of the analysis of real estate topics contained in BRE curricula in Africa are shown in Appendices 1 to 7. As it can be noted in the Appendices, many and a variety of real estate topics are offered in Africa. In light of this, the starting point of analysis of data collected for this study was to recognize the fact that, by including the topics in the curricula given in Appendices 1 to 7, the academics in Africa had thoroughly considered and applied their minds to ensure that the topics were important for the real estate industries in their respective countries. In total, 297 topics were identified from the seven selected BRE curricula. Table 2 shows a breakdown of this number for each university. Understandably, many real estate topics were expected in Africa since the continent is large and has many countries (55 in total), whose populations are diverse and have different real estate needs. After completion of the analysis, and sorting as well as re-grouping of the topics included in the curricula by the academics, sensible and meaningful perceptions of academics on real estate topics in Africa emerged from the curricula that they offered. Following from this, ten important real estate topics emerged from all the seven selected BRE curricula. Table 3 contains the ten topics that materialized from the study. They are: Real estate management, Real estate valuation, Real estate economics, Real estate finance and investment, Real estate development, Real estate law, Real estate planning, Real estate research, Real estate industrial training, and Real estate electives. The topics are in line with those what is expected in a comprehensive real estate curriculum (Carn and Rabianski, 1986; Epley, 1996; Black et al., 1996; Bulter et al., 1998; Roulac, 2002; Callanan & McCarthy, 2003; Finch & Weeks, 2003; Galuppo and Worzala, 2004; Chikafalimani, 2010; Chikafalimani & Cloete, 2010; Chikafalimani, 2013; Chikafalimani & Reddy, 2014). Appendices 1 to 7 also exhibit related topics that fell under the important real estate topics that emerged in each BRE curriculum upon completing the analysis, sorting and re-grouping the topics. Furthermore, as noted from this analysis, the study has proceeded to commence the essential process of harmonizing real estate topics offered in Africa. Put simply, findings of this study provide a good benchmark and foundation for academics to harmonise and standardise BRE education in Africa, which would be a magnificent development for the continent in the future.

Results of the study also reveal a very interesting description of the real estate education approach adopted by academics in Africa. The interpretation, after the ten relevant real estate topics that have

emerged from the study given in Table 3 are compared to the three real estate education approaches, is that BRE curricula in Africa are following the interdisciplinary approach to real estate education. This conclusion is based on the fact that the listed ten important real estate topics that emerged from BRE curricula highlight the point that academics in Africa are blending and balancing built environment, business management, investment and finances real estate topics in their curriculums. Consequently, the perception of academics in Africa is that all real estate topics that have emerged in the existing curricula are important for a real estate professional to function competently in the industry and must be included in a comprehensive BRE curriculum. Therefore, based on this finding, the academics in Africa are of the view that real estate should be treated as an interdisciplinary field, which brings together: investment and finance, business management, law, built environment and other real estate topics into one comprehensive curriculum. The main advantage of this approach to real estate education is that it supports the production of well-rounded real estate professionals with broader knowledge in real estate who can manage to offer several solutions to multiple real estate related problems encountered in practice in the industry and at the workplace.

Table 2

Number of topics before and after re-grouping in BRE curricula in Africa

University	Number of topics before sorting and re-grouping of topics	Number of topics that emerged after sorting and re-grouping of topics
ARU, Tanzania	55	10
CU, Zambia	33	10
KNUST, Ghana	31	10
MU, Uganda	45	10
OAU, Nigeria	50	10
UCT, S. Africa	34	10
UN, Kenya	49	10
Total	297	10

Sources: Real Estate Study Guides: ARU, CU, KNUST, MU, OAU, UCT and UN (2020).

Table 3

Real Estate Topics in BRE Curricula Offered in Africa

Important real estate topics that emerged from BRE curricula in Africa					
1	Real estate management	5	Real estate development	9	Real estate industrial training
2	Real estate valuation	6	Real estate law	10	Real estate electives
3	Real estate economics	7	Real estate planning		
4	Real estate finance and investment	8	Real estate research		

Sources: Selected BRE curricula in Africa (2020).

5. Conclusion and Further Research

This study was aimed at determining the perceptions of academics on topics and themes included in BRE curricula offered in Africa. The analysis of study guides of BRE curricula offered in Africa was the main research approach used in the study. As a result of the study, seven suitable BRE curricula offered at universities in Africa on a fulltime basis were identified. Selection of the curricula was based mainly on three criteria. Firstly, availability and accessibility of curriculum information. Secondly, preference was given to BRE curricula offered in the English language; and thirdly, wherever necessary, recognition or accreditation of the curriculum by a country professional body or by the RICS and World university rankings were also considered as significant deciding factors in selecting a curriculum for the study.

The study noted that many real estate topics are offered in BRE curricula in Africa. This was expected due to the existence of many countries on the African continent whose populations are diverse, as well as having many different real estate needs. After completion of the analysis, sorting and re-grouping of all topics included in seven selected BRE curricula offered in Africa, ten important real estate topics emerged. These topics are: Real estate management, Real estate valuation, Real estate economics, Real estate finance and investment, Real estate development, Real estate law, Real estate

planning, Real estate research, Real estate industrial training, and Real estate electives. These topics are in line with the relevant real estate topics expected in a comprehensive real estate curriculum. One main contribution of this finding is that it provides different interested parties throughout the world with an awareness of real estate topics included in BRE curricula and taught by academics in Africa. Following from this, the study has contributed to global efforts of discovering the real estate body of knowledge.

According to categories of different real estate education approaches offered in different parts of the world, the study noted that BRE curricula in Africa are following the interdisciplinary approach to the study of real estate. The interdisciplinary approach in education views real estate broadly, combining aspects of the built environment, business management, investment and finance in its curriculum. Based on this approach, the study further noted that academics in Africa are of the opinion that real estate should be viewed as an interdisciplinary field of study. This gesture emphasizes the fact that real estate educators in Africa intend to promote the graduation of real estate professionals who are exposed to different aspects of real estate and have the ability to practice real estate and conduct real estate business in different African countries, as well as, globally due thanks to their broader knowledge of real estate.

To conclude, the results of the study will encourage real estate academics in Africa and elsewhere in the world in the development of new comprehensive real estate curricula or improvement of the existing ones in order to accommodate the international perspective and interdisciplinary approach of real estate education due to their benefits mentioned earlier. In this way, findings of the study will support the harmonization of real estate education, practice, investment and business in Africa. A consequence of this will be the enormous contribution of the real estate sector in Africa to economic development and integration of Africa as a continent. Finally, the study recommends further research in real estate education including areas of internationalization and the interdisciplinary approach of real estate education in order to continuously meet the needs of the real estate industry. The intention is to support real estate students, academics, practitioners, investors and business people in their respective endeavors. Additionally, this study contributes to knowledge in the real estate area that can be accessed by students, investors, practitioners and those conducting business in real estate in different parts of Africa and other parts the world. It will also assist the release of well-rounded real estate professionals who are capable of offering multiple real estate solutions in the workplace in the future while adapting to the ever-changing environment.

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APPENDIX 1		APPENDIX 2	
BSc (Real Estate) curriculum, Ardhi University, Tanzania		BSc (Real Estate) curriculum, Copperbelt University, Zambia	
Important Real Estate Topics that emerged after re-grouping the topics		Important Real Estate Topics that emerged after re-grouping the topics	
1	Real Estate Electives	1	Real Estate Electives
Related Topics Offered		Related Topics Offered	
Basic mathematics. Communication skills. Computer applications to real estate. Development perspectives. English language. Entrepreneurship. Environmental studies. Introduction to information and communication technology. Principles of management. Procurement and logistics management. Project management.		Communication Skills. Mathematics. Introduction to Sociology. Principles of Management.	

Statistics.			
2	Real Estate Development	2	Real Estate Development
Related Topics Offered		Related Topics Offered	
Basics of quantity surveying. Construction. Development appraisal. Property development. Housing. Architectural studies.		Built Environment. Land policy and development. Construction and services. Principles of real estate development.	
3	Real Estate Management	3	Real Estate Management
Related Topics Offered		Related Topics Offered	
Maintenance technology and management. Real estate marketing and agency. Land administration.		Real Estate Management	
4	Real Estate Economics	4	Real Estate Economics
Related Topics Offered		Related Topics Offered	
Econometrics. Land economics. Principles of economics. Urban economics.		Development economics. Introduction to economics. Housing economics and policies. Land economics	
5	Real Estate Investment and Finance	5	Real Estate Investment and Finance
Related Topics Offered		Related Topics Offered	
Business accounts. Corporate finance. Elements of banking. Financial markets. Real estate finance. Financial mathematics. Investment analysis. Property investment. Taxation.		Business finance. Principles of real estate investment. Financial accounting. Real estate finance and taxation. Mathematics of finance.	
6	Real Estate Valuation	6	Real Estate Valuation
Related Topics Offered		Related Topics Offered	
Business valuation. Introduction to valuation. Real estate market analysis.		Applied valuation. Valuation methodology. Principles of valuation.	
7	Real Estate Law	7	Real Estate Law
Related Topics Offered		Related Topics Offered	
Business ethics. Business law. Elements of law. Land law. Planning law. Public policy analysis.		Introduction to intellectual property rights. Principles of real property law. Law of contracts and tort. Applied property law.	
8	Real Estate Planning	8	Real Estate Planning
Related Topics Offered		Related Topics Offered	
Geographic information systems. Introduction to land surveying. Land information systems. Urban and rural planning		Introduction to physical and human Geography. Real estate information systems. Land information systems.	
9	Real Estate Research	9	Real Estate Research
Related Topics Offered		Related Topics Offered	
Dissertation. Pre-Dissertation study. Quantitative methods. Research methodology. Scientific report writing. Semester project.		Quantitative studies. Studio project. Research methodology and academic reporting. Thesis project.	
10	Real Estate Industrial Training	10	Real Estate Industrial Training
Related Topics Offered		Related Topics Offered	
Industrial Training. Professional Casework.		Practical Training	
Note: Before sorting = 55 topics. After sorting = 10 expected real estate topics		Note: Before sorting = 33 topics. After sorting = 10 expected real estate topics	
<i>Source:</i> Real Estate Study Guides, Ardhi University, Tanzania (2020)		<i>Source:</i> Real Estate Study Guides, Copperbelt University, Zambia (2020)	

APPENDIX 3		APPENDIX 4	
BSc (Land Economy) curriculum, KNUST, Ghana		BSc (Land Economics) curriculum, Makerere University, Uganda	
Important Real Estate Topics that emerged after re-grouping the topics		Important Real Estate Topics that emerged after re-grouping the topics	
1	Real Estate Electives	1	Real Estate Electives
Related Topics Offered		Related Topics Offered	
Communication skills. Introduction to computers. Elements of central and local government. Literature in English. Introductory statistics. Principles of forestry.		Communication skills. Entrepreneurship. Computer literacy. Introduction to gender. Engineering mathematics. Sociology for technology.	
2	Real Estate Development	2	Real Estate Development
Related Topics Offered		Related Topics Offered	
Building construction and services. Industrial structures and building quantities.		Building finishes and fixtures. Construction drawing. Building services. Construction materials. Building surveying.	

		Construction technology. Measured drawing. Real estate development.
3	Real Estate Management	3 Real Estate Management
Related Topics Offered		Related Topics Offered
Estate agency. Estate management.		Maintenance Management. Property Marketing. Property management.
4	Real Estate Economics	4 Real Estate Economics
Related Topics Offered		Related Topics Offered
Land economics		Development economics for construction. Macroeconomics for surveyors. Elements of econometrics. Microeconomics for surveyors. Land economics. Property economics.
5	Real Estate Investment and Finance	5 Real Estate Investment and Finance
Related Topics Offered		Related Topics Offered
Financial mathematics. Real estate finance. Principles of accounting.		Investment appraisal. Property investment analysis. Principles of accounting. Real estate finance and taxation.
6	Real Estate Valuation	6 Real Estate Valuation
Related Topics Offered		Related Topics Offered
Advanced Valuation. Rating and Taxation. Principles of Valuation.		Real Estate Valuation
7	Real Estate Law	7 Real Estate Law
Related Topics Offered		Related Topics Offered
Arbitration and civil procedures. Law of conveyancing. Compulsory purchase and compensation. Law of torts. General principles of law. Law of trust and succession. Law of contract. Principles of customary land law.		Administrative and local government law. Land regulation. Basic law and governance structures. Law of contract for surveyors. Commercial law for construction. Law of torts and technology. Land policy studies. Real property law.
8	Real Estate Planning	8 Real Estate Planning
Related Topics Offered		Related Topics Offered
Fundamentals of planning. Land use planning and administration. Introduction to geo-information systems. Principles of surveying.		Geographical information systems. Land plan drawing. Land measurement sciences. Urban and regional planning.
9	Real Estate Research	9 Real Estate Research
Related Topics Offered		Related Topics Offered
Research Methods.		Final year project. Research methods and statistics.
10	Real Estate Industrial Training	10 Real Estate Industrial Training
Related Topics Offered		Related Topics Offered
Professional practice.		Industrial training. Professional practice, procedure and ethics.
Note: Before sorting = 31 topics. After sorting = 10 expected real estate topics		Note: Before sorting = 45 topics. After sorting = 10 expected real estate topics
<i>Source:</i> Real Estate Study Guides, KNUST, Ghana (2020)		<i>Source:</i> Real Estate Study Guides, MU, Uganda (2020)

APPENDIX 5	APPENDIX 6
BSc (Estate Management) curriculum, Obafemi Aolowo University, Nigeria	BSc (Property Studies) curriculum, University of Cape Town, South Africa
Important Real Estate Topics that emerged after re-grouping the topics	Important Real Estate Topics that emerged after re-grouping the topics
1 Real Estate Electives	1 Real Estate Electives
Related Topics Offered	Related Topics Offered
Agricultural production. Mathematics for social scientists. Basic statistics. Nature of environmental sciences. Computer programming. Project planning and control. Graphic communication. Statistical methods and sources. Introduction to problems of philosophy.	Business statistics. Mathematics. Evidence based management. Professional communication studies. Globalisation and the built environment. Statistics.
2 Real Estate Development	2 Real Estate Development
Related Topics Offered	Related Topics Offered
Building construction and materials. Introduction to architectural design. Building services and equipment. Introduction to building environment. Feasibility and viability studies. Real estate and strategic decision-making.	Building technology. Measurement. Cost Engineering. Property Studies (Development). Housing Development and Management.
3 Real Estate Management	3 Real Estate Management
Related Topics Offered	Related Topics Offered
Applied property and facility management. Property management and sustainability. Building maintenance. Real estate agency and marketing. Introduction to estate management. Real estate	Marketing. Advanced property studies (Management). Property studies (Management)

portfolio management. Land use and resources management.			
4	Real Estate Economics	4	Real Estate Economics
Related Topics Offered		Related Topics and Offered	
Elements of economic theory and principles. Micro-economic theory. Introduction to agricultural economics. Principles of land economy. Land economics. Principles of economics. Macro-economic theory. Urban economics.		Macroeconomics. Property studies (Economics). Microeconomics. Advanced property studies (Economics)	
5	Real Estate Investment and Finance	5	Real Estate Investment and Finance
Related Topics Offered		Related Topics Offered	
Estate development and finance. National and local taxation. Introduction to accounting.		Business accounting. Property investment mathematics. Business finance. Property studies (Investment and Finance). Financial Accounting. Advanced property studies (Investment and Finance). Management Accounting.	
6	Real Estate Valuation	6	Real Estate Valuation
Related Topics Offered		Related Topics Offered	
Advanced valuation. Plant and machinery valuation. Introduction to valuation. Principles of valuation.		Property Studies (Valuation). Advanced Property Studies (Valuation).	
7	Real Estate Law	7	Real Estate Law
Related Topics Offered		Related Topics Offered	
Arbitration and award. Land law. Comparative land policy. Real estate law		Applied property law. Labour law. Business law. Property and contract law. Company law. Real property law.	
8	Real Estate Planning	8	Real Estate Planning
Related Topics Offered		Related Topics Offered	
Basic elements of planning. Land use planning. Fundamental surveying. Practical surveying.		Property information systems.	
9	Real Estate Research	9	Real Estate Research
Related Topics Offered		Related Topics Offered	
Project Dissertation. Research Methodology.		Research and survey statistics. Treatise.	
10	Real Estate Industrial Training	10	Real Estate Industrial Training
Related Topics Offered		Related Topics Offered	
Professional practice and code of conduct. Student's industrial works experience scheme. Student's works experience programme.		Experiential learning.	
Note: Before sorting = 50 topics. After sorting = 10 expected real estate topics		Note: Before sorting = 34 topics. After sorting = 10 expected real estate topics	
<i>Source:</i> Real Estate Study Guides, OAU, Nigeria (2020)		<i>Source:</i> Real Estate Study Guides, UCT, South Africa (2020)	

APPENDIX 7	
BSc (Real Estate) curriculum, University of Nairobi, Kenya	
Important Real Estate Topics that emerged after re-grouping the topics	
1	Real Estate Electives
Related Topics Offered	
Communication skills. Principles of agriculture and forestry. Entrepreneurial studies. Principles of management. Environmental science. Project management theory and practice. HIV/AIDS. Real estate statistics. Information communication technology in real estate. Science and technology in development. Introduction to computing. Value and risk management. Physical environment.	
2	Real Estate Development
Related Topics Offered	
Architectural drawing and design. Environmental building services. Building materials and finishes. Property infrastructure and development. Building technology.	
3	Real Estate Management
Related Topics Offered	
Property and facilities Management. Property maintenance.	
4	Real Estate Economics
Related Topics Offered	
Agriculture economics and management. Macroeconomics. Housing economics and administration. Microeconomics. Land economics. Natural Resource Economics. Land Taxation.	
5	Real Estate Investment and Finance
Related Topics Offered	
Investment appraisal and analysis. Real estate finance. Mathematics for real estate. Principles of accounting and financial management.	
6	Real Estate Valuation
Related Topics Offered	
Applied valuation. Applied valuation: natural resources. Applied valuation: plant and machinery. Principles of valuation.	

7	Real Estate Law
Related Topics Offered	
Business law. Elements of law and government. Contracts and procurement in real estate services. Law of real property. Law of contract and tort. Property dispute resolution.	
8	Real Estate Planning
Related Topics Offered	
Elements of urban and regional planning. Introduction to land surveying. Environmental impact assessment and audits. Land management and policy studies. Land administration and information Systems	
9	Real Estate Research
Related Topics Offered	
Research methods. Research project.	
10	Real Estate Industrial Training
Related Topics Offered	
Professional Practice and Ethics	
Note: Before sorting = 49 topics. After sorting = 10 expected real estate topics <i>Sources</i> Real Estate Study Guides, University of Nairobi, Kenya (2020)	