

**University of Nigeria, Nsukka**

**DEPARTMENT OF ESTATE MANAGEMENT**

**POSTGRADUATE PROGRAMMES IN ESTATE MANAGEMENT (PGD, MSC, MRE & PHD)**

**PHILOSOPHY:**

The basic and indispensable nature of land resource in all of man's socio-political and economic activities makes Estate Management discipline inevitably eclectic in nature, its being both multi- and inter-disciplinary. Consequently, postgraduate educational training in such a complex field calls for inculcation, in the products, of more effective and rigorous managerial, analytic and quantitative creative scholarly and entrepreneurial abilities sufficient to grapple with the dynamic and ever-increasing complex land resource activity problems of the society from first principles. Hence the postgraduate programmes are designed to give the graduate students in-depth exposure to and thorough grasp of the literary foundations and current developments in the field of Estate Management. Ultimately the products are to be equipped with highly skilled professional abilities, advanced critical thinking, more spirit of inquiry, and philosophical attitudes.

**OBJECTIVES:**

The general and composite objectives of the postgraduate programmes in Estate Management are as follows:

- To provide bridge or equip persons deficient in their first degree or equivalent qualifications with enhanced academic background to enable them either pursue a higher degree study in Estate Management or practice the profession with cutting-edge capability.
- To meet the needs of the more pragmatically inclined individuals whose primary career interest is possession of advanced knowledge of the literary foundations which will enable them to be more effective entrepreneurs, managers, and leaders in commerce, industry and self-employment in flourishing real estate business and consultancy.
- To meet the career needs of the more academically and philosophically inclined individuals whose primary interest is acquisition and development of in-depth theoretical knowledge-base with sufficient practical flair and well sharpened research capability for more effective service in the public and private sectors such as government ministries, research institutes, universities and polytechnics, commerce and industry, and international organizations.
- To produce top-most academics, researchers, and highly advanced manpower and radical thinkers for our universities and other tertiary institution, government, private corporations, and organizations and policy formulators on various aspects of estate management.

**SCOPE:**

The postgraduate programmes in Estate Management are at their various respective levels both extensive and intensive in nature as appropriate. The aim being to expose the graduate student to advanced thinking in all aspects of the discipline, thus broadening their knowledge base, and deepening their literary foundations, practical applications and philosophical attitudes. The main thrust of the programme, therefore, embraces advanced course work in compulsory/core courses and electives, seminars, as well as a research work to be prosecuted and presented either as a project or thesis report. The number of compulsory/core courses and electives, and their subtotal credit units vis a vis the credit units assigned to the research component vary according to the level and nature of the postgraduate programme. For the PGD programme, however, students whose entry qualification background is not estate management have additional remedial courses to take at undergraduate level.

**ENTRY REQUIREMENTS:**

**PGD Programme:**

- Be a graduate of the University of Nigeria or other recognized universities with at least a third class honours and having obtained a CGPA of not less than 2.00 on a 5-point scale or its equivalent.
- Be holders of HND with a 3.50 GPA on a 5-point scale or its equivalent.

**Master of Science (M.Sc) Programme:**

Be a bachelor's degree holder in Estate Management of the University of Nigeria, or of other recognized universities, with CGPA of not less than 2.50 on a 5-point scale or its equivalent. Also candidates with postgraduate diploma in Estate Management of the University of Nigeria, or of other recognized universities, with CGPA of not less than 3.50 on a 5-point scale or its equivalent.

**Master of Real Estate (MRE) Programme:**

The same entry qualifications as stipulated above for M.Sc programme.

**Doctor of Philosophy (Ph.D) Programme:**

Entry into the Ph.D Programme could be through Masters/Ph.D Programmes or directly through admission to Ph.D Programme per se.

**Admission to M.Sc/Ph.D Programme:**

Candidates with first class honours bachelors degree in Estate Management from a recognized University may be admitted into a Master's/Ph.D Programme. The candidates so admitted has two options, namely:

- First, and preferably the candidate could complete the Master's degree programme and then, if he passes it with a minimum of 3.50 GPA on a 5 point scale, apply for Doctoral programme; or
- Secondly, the student's general performance could be evaluated after the first two semesters of being on the M.Sc/Ph.D programme . If the student makes a GPA of 3.50 or above in the coursework and shows sufficient ability for research work at Ph.D level, then Senate, on the recommendation of the Departmental and Faculty Postgraduate Studies Committee, and the Board of the School of postgraduate studies, may approve that the candidate proceeds to the Ph.D programme without fully completing the Master's programme.

**Direct Admission to Ph.D Programme:**

A candidate must have academic M.Sc or M.Tech degree or equivalent in Estate Management with a minimum of 3.50 grade point average on a 5 point scale or 3.00 on the old 4 point.

**DURATION OF THE PROGRAMMES:****PGD Programme:****For students with Estate Management Background:**

- **Full-Time:** Minimum of two (2) semesters and a maximum of four (4) semesters.
- **Part-Time:** Minimum of four (4) semesters and a maximum of six (6) semesters.

**For students without Estate Management background:**

- **Full-Time:** Minimum of four (4) semesters and a maximum of six (6) semester
- **Part-Time:** Minimum of six (6) semesters and a maximum of eight(8) semesters.

**MRE Programme:**

- **Full-Time:** Minimum of two (2) semesters and a maximum of four (4) semesters.
- **Part-Time:** Minimum of four (4) semesters and a maximum of six (6) semesters.

**M.Sc Programme:**

The duration of the M.Sc. programme is as follows:

- **Full-Time:** Minimum of three (3) semester and a maximum of five (5) semesters.
- **Part-Time:** Minimum of five (5) semesters and a maximum of eight (8) semesters

**Ph.D Programme:**

- **Full-Time:** Minimum of (6) six semesters and a maximum of (10) ten semesters

- **Part-Time:** Minimum of (8) eight semesters and a maximum of (12) twelve semesters.

## REQUIREMENTS FOR GRADUATION:

### PGD Programme:

#### (a) For Students with Estate Management Entry Qualification Background.

To be awarded the PGD, a student with Estate Management entry qualification background must have satisfied the following requirements: taken and passed the prescribed number of courses from the approved list, successfully presented a seminar from, and also submitted an acceptable written report of, his/her research project, all totaling 28 credit units as follows:

Compulsory/Core Courses	16 Units
Elective Courses	8 Units
Research Project Seminar	2 “
Research Project Report	2 “
<b>Total</b>	<b><u>28 Units</u></b>

#### (b) For Students Whose Entry Qualification Background is Not Estate Management

To be awarded the PGD, a student whose entry qualification background is not Estate Management must have satisfied the following prescribe requirements, stated similarly as in subsection (a) above:

Remedial Courses	14 Units
Compulsory/Core Courses	18 Units
Elective Courses	12 Units
Research Project Seminar	2 “
Research Project Report	2 “
<b>Total</b>	<b><u>48 Units</u></b>

### MRE Programme:

To be awarded the MRE, a student must have satisfied the following requirements: taken and passed the prescribed number of courses from the approved list, successfully presented a seminar from his/her research project, submitted an acceptable written report of the project which must pass plagiarism test, and successfully defended it in an oral examination before an external examiner, all of which totaling 37 credit units as follows:

Compulsory/Core Courses	20 Units
Elective Courses	8 Units
Seminar from the Research Project	3 “
Research Project Report/Oral Defence	6 “
<b>Total</b>	<b><u>37 Units</u></b>

### M.Sc Programme:

To be awarded the M.Sc a student must have satisfied the following requirements: taken and passed the prescribed number of courses from the approved list, successfully presented a seminar from his/her research project, submitted an acceptable written report of the project which must pass plagiarism test, and successfully defended it in an oral examination, all of which totaling 41 credit units as follows:

Compulsory/Core Courses	16 Units
Elective Courses	12 Units
Seminar from the Research Project	3 “
Research Project Report/Oral Defence	10 “
<b>Total</b>	<b><u>41 Units</u></b>

### Ph.D Programme:

To be awarded the Ph.D, a student must have satisfied the following requirements: taken and passed the prescribed number of courses from the approved list, successfully presented two seminars, submitted an original, convincing and authoritatively written thesis report on his/her research topic, presented a paper out of the thesis at an international or national conference in his/her field, and successfully defended the thesis in an oral examination before an external examiner; the thesis report must also pass plagiarism test. The total credit load of the doctoral programme is as follows:

Compulsory/Core Courses	7 Credit Units
Elective Courses	6 Credit Units
Seminar I, Research Proposal	3 “
Seminar II, Pre-defence	3 “
Thesis Report/Oral Defence	12 “
<b>Total</b>	<b><u>31 Credit Units</u></b>

### JOB OPPORTUNITIES:

There is wide employment market for holders of various levels of postgraduate qualification in Estate Management in both the private and public sectors of the Nigerian economy. Career options include middle and top management positions in commerce and industry, research and development departments of private organizations with strong real estate orientation, government ministries and agencies at the federal, state, and local government levels, and not least of all, professional consulting in private practice. Other areas of employment are academic positions in the departments of Estate Management in Nigerian universities and polytechnics, the numerical strength of which has been on a sustained increase over the years.

### AREA OF SPECIALIZATION:

The stress area in which a student's research topic falls becomes his/her area of specialization.

### LIST OF APPROVED POSTGRADUATE SUPERVISORS:

- Prof. J.U. Ogbuefi, B.Sc., M.Sc., Ph.D
- Emeritus Prof. J.A. Umeh, OFR
- The Ven. Asso. Prof. I.W. Ozigbo. B.Sc., M.Sc., Ph.D., LLB, LB
- Dr. I.R. Egbenta, B.Sc., M.Sc., Ph.D
- Pst. Dr. D.U. Ifeanacho, B.Sc., M.Sc., Ph.D
- Dr. Mrs. U.R.B. Emeasoba, B.Sc., M.Sc., Ph.D
- Dr. Mrs. C. A. Ozigbo, B.Sc., M.Sc., Ph.D
- Dr. P. C. Ogbuefi, B.Sc., M.Sc., Ph.D
- Dr. O. J. Akalemeaku, B.Sc., M.Sc., Ph.D.

### STRESS AREAS:

For reasons of expediency due to some uniqueness of two (PGD and MRE) of the postgraduate programmes of the Department, there are of necessity some little variations in the stress areas titles and code numbers among the four postgraduate programmes. Accordingly, each programme has its own stress area titles and code numbers as presented under it.

### STRESS AREAS FOR PGD PROGRAMME:

-ICT/Research/ Quantitative Techniques in Estate Management	<b>0</b>
-Land Policy/Land Use and Resources Development	1
-Town and Country Planning/Urban Land Economics	2
-Property Investment Valuation	3
-Legal Studies	4
-Property and Facility Management/Real Estate Development Finance and Project Management	5
-Feasibility and Viability Appraisal, Investment Analysis and Portfolio Management	6
-Property Rating & Land Taxation/Professional Practice	7
-Research Project Seminar	--
-Research Project Report	..

### PGD CURRIRULUM TABLE:

#### FIRST SEMESTER

COURSE CODE	COURSE TITLE	Credit Units
<b>Compulsory/Core Courses</b>		
ESM 0601	Research Methodology & Research and Quantitative Techniques in Estate Management.	2
ESM 0631	Property Investment Valuation I	2
ESM 0651	Property & Facility Management	2
ESM 0661	Feasibility & Viability Appraisal	2
	<i>Electives (2 no.)</i>	<u>4</u>
	<b>Sub-total</b>	<b><u>12</u></b>

<b>Elective Courses</b>			<b>Credit Units</b>	
ACC 0101	Principles of Accounting I		2	
SVY 0201	Basic Land Surveying I		2	
ARC 0341	Building Construction Methods & Materials		2	
ESM 0641	Principles of Law of Contract, Tort, and Arbitration		2	
ESM 0611	Rural and Urban Land Policies		2	
ESM 0621	Applied Town and Country Planning		2	
ESM 0633	Plant and Machinery Valuation		2	
ESM 0671	Property Rating and Land Taxation		2	

### **SECOND SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Units</b>	
<b>Compulsory/Core Courses</b>			
ESM 0612	Land Use & Resources Development II	2	2
ESM 0632	Property Investment Valuation II	2	2
ESM 0662	Portfolio Analysis and Management	2	2
ESM 0672	Professional Practice	2	2
*ESM 0642	Principles of Land Law	-	2
	<i>Electives (2 no.)</i> ..	4	4

### **Research Project**

ESM 0682	Research Project Seminar	2	2
ESM 0692	Research Project Report	<u>2</u>	<u>2</u>
	<b>Sub-total</b> ..	<b><u>16</u></b>	<b><u>18</u></b>
	<b>Total</b> ..	<b><u>28</u></b>	<b><u>30</u></b>

<b>Electives Courses</b>			<b>Credit Units</b>	
ESM 0652	Real Estate Development Finance and Project Management		2	
ESM 0622	Urban Land Economics		2	
ARC 0262	Building Services and Maintenance		2	
ACC 0102	Principles of Accounting II		2	
SVY 0202	Basic Land Surveying II		2	

**\*Additional/fifth compulsory core course for students without Estate Management entry qualification background.**

**+Total credit load for students without Estate Management entry qualification background besides load from remedial courses at undergraduate level.**

### **COURSE DESCRIPTION:**

#### **FIRST SEMESTER**

#### **ESM 0601: Research Methodology ICT & Quantitative Techniques**

**(2 Units)**

The nature, purpose and types of research. The basic competencies required of researchers. The Research Process. Problem identification and formulation research proposal/design. Data collection, analysis, and presentation. Research hypotheses and questionnaire construction. Literature review, etc. The use of statistical analysis in problem solving: Multiple and partial correlations, analysis of time series, simple and multiple regression analysis and their applications, probability theory and models. Introductory teaching of computer and online resources. Organization and presentation of research project report.

#### **ESM 0611: Rural and Urban Land Policies**

**(2 Units)**

Concepts and definitions of Land policies in the context of land ownership motives. The nature of customary tenure in economic and social structure in selected countries in Africa and the rest of the world. The purpose and progress

of national land reforms in selected countries. Implementation and evaluation of land policies and specialized government institutions and other bodies related to land policy implementation.

Classification, objectives, methods and over-view of land reforms in Nigeria. The Land Use Act 1978, Public Lands Acquisitions (Miscellaneous Provisions) degree 1976, etc. Effects of constitutional land tenure and planning policies on national development, Rural and Urban land policies compared and contrasted Comparisons of Nigerian land policies with those of selected countries of the world.

**ESM 0621: Applied Town and Country Planning (2 Units)**

Application of general planning principles to the development of urban and rural communities. The respective components of a town and a rural community and their respective space and siting requirements. Traffic and transport planning. Site planning and physical ordering of residential, commercial, industrial, recreational and other land uses, including road layout, sizes and grouping of buildings and open spaces etc. Architectural appreciation and landscaping. Central area problems such as urban congestion and slums. Housing Laws of town and programmes, private and Public participation. Valuation of financial implications of development and redevelopment programmes and projects. The role of private and public developers. Compensation –Betterment controversies and their resolutions. Impacts of government policies and actions. Field/project work whereby real urban, rural and regional planning problems are studied under guidance and practical solutions proposed by the students.

**ESM 0631: Property Investment Valuation I: (2 Units)**

Concepts of value and theories of valuation and their applications. Principle of real estate value. The functions of a Valuer Mathematical, statistical and other basic frame-works for valuation. The bases and methods of valuing various estates and interests in landed property. Business valuation for market value and going concern value for mergers, take overs, etc. Property Valuations for insurance, mortgage, marriage value, surrenders, extensions and renewals of leases. Value and valuation implications of rent control regulation and similar statutory enactments. Valuation of special types of property e.g. hotels, filling stations etc. Principles guiding the valuation of agricultural property.

**ESM 0633: Plant and Machinery Valuation (2Units)**

Definition and identification of plant and machinery. Survey and determination of functional and economic lives and efficiency of plant and machinery. Various purposes for which plant and machinery valuation may be required. Different methods of valuing plants and machinery.

**ESM 0641: Principles of Law of Contract, Tort and Arbitration: (2 Units)**

Principles of law of Contract and Principles of law of Tort. Formation of contract. Void, voidable and unenforceable contracts. Termination of contracts, remedies for breach. Basic Principles of Tort. Tort affecting landed property. Negligence, nuisance, trespass, liability for animals, housing collapse and dangerous premises laws. Arbitration and Awards. The nature of arbitration, its origin and application to valuation. Expert evidence and proof of evidence.

**ESM 0651: Property and Facility Management: (2 Units)**

The proprietary land structure of Nigeria compared with those of selected countries of the world. Leasehold compared and contrasted with rights of occupancy. Aims, policies, and techniques of private and public land administration and management. Preparation of schedule of dilapidations. Maintenance and upkeep of properties. Laws on Housing, Dilapidations, Landlords and Tenants, Portfolio advice. Basic principles and techniques of facility management. Principles applicable in managing public estates. Proprietary land unit, income and consociate wealth. The development and redevelopment processes. Impact on proprietary interest in land of Government development plans. Land policy and fiscal policies and legislations pertinent to real estate and an appreciation of the implications for property management.

**SM 0661: Feasibility and Viability Appraisals: (2 Units)**

Concept of Appraisal. Feasibility and Viability indicators. Traditional and Modern Feasibility and Viability Appraisal techniques. Residual Valuation, Developmental valuation as an appraisal technique. Cost-Benefit analysis, Discounted cash flows and other techniques. Forecasting of costs and benefits. Risk analysis techniques: Sensitivity tests, MEAN-SD, Simulation analysis, Probabilistic, Follow-up appraisal and other techniques. Critical path analysis and other operations research techniques, and their implications for project feasibility and viability.

**ESM 0671: Property Rating and Land Taxation: (2 Units)**

The place of Property Rating in local government finance. The nature, content, preparation and amendment of the valuation list. The basis and methods of rating valuation. Rating laws and appeals. Income tax: nature and incidence, allowance and deductions. Assessment of owners and occupiers of landed property. Taxation of capital: Estate duty,

Stamp duty, Capital transfer tax, etc and valuations associated therewith. Statutory provisions and Case laws on land taxation reforms.

## **SECOND SEMESTER**

### **ESM 0612: Land Use and Resources Development: (2 Units)**

Proprietary land use analysis. Social and legal theories of land ownership. The influence of climate. Economic development, socio-political order. Land tenure system and its implications on land use and development. Competitive and complementary land uses. Population and land area ratios, national and local differences. The exploitation of land resources. Rural and urban land uses and allocations. Development and redevelopment. Supply of and demand for land. Land resources and land use in the Nigerian economy. Land reforms and their implementation programmes in selected countries. National Policy on conservation of natural resources. Soil erosion. Environmental Pollution and Controls. Environmental impact assessment.

### **ESM 0622: Urban Land Economics (2 Units)**

Factors governing the patterns of land use. The development and use of economic and management principles in identifying and analyzing the determinants of urban land uses and land values. Location of economic activities and its impact on urban land use and values. Economic aspects of urban land valuation. Urban land use controls – merits and demerits. Financing, development and redevelopments. Economics of urbanization, theories of urban structures and growth. Urban policy. The urban land market. Transportation and economic development. Housing laws, maintenance and policies.

### **ESM 0632: Property Investment Valuation II (2 Units)**

Asset valuations and principles involved in establishing the value of its assets to a government, a company or a partnership. Statutory valuations for rating, taxation, way leaves, probate, compulsory acquisition and compensation of land. Valuations for investment advice/counseling. Contemporary investment method of valuation models: real value, equated yield, real value-equated yield hybrid. The Estate Surveyor and Valuer as an expert witness.

### **ESM 0642: Principles of Land Law (2 Units)**

Elements of Land Law: the Principles of English Land Law. Outline of the development of freehold and leasehold estate, and interests. Legal and equitable interest in land, pledges, pawns, mortgages and their nature in common law, equity and Nigerian law. The Role of land in indigenous Nigerian society & economy. The nature of landholdings, the Land Use Act 1978 and other Statutory provisions dealing with land registration, acquisition and administration. Compulsory Acquisition and State Grants. Housing laws. The Impact of Town and country planning laws. Law of Leases and mortgages.

### **ESM 0652: Real Estate Development Finance and Project Management (2 Units)**

Estate capital: traditional and contemporary sources of real estate and development finance. Internal and consociate wealth as estate and development funds. Contractor financing. Insurance and other non-banking institutions and banks as sources of estate and development finance. Securitization and its role in provision of estate and development finance., mortgage-backed securities (MBS): nature and operations. The effects of government policies and legislative enactments. Project management techniques: gantt chart, line of balance, systems approach, project evaluation and review technique (PERT), critical path method, etc.

### **ESM 0662: Portfolio Analysis and Management (2 Units)**

Rational Investment and Speculation distinguish. Types of investment assets. Investment decision making process and approaches. Concept and contents of investment portfolio. Old and modern portfolio theories: risk, return and diversification, efficient frontier, capital asset pricing model (CAPM). Investment performance measurement and evaluation: objectives, measures/indicators, single asset and portfolio contexts. Property and portfolio: management distinguished. Construction of property portfolios; Elementary and standard methods of property performance measurement: single asset and portfolio contexts: Organization and presentation of performance; Data requirements, investment property data bank (IPDB); and Tracking an index.

**ESM 0672: Professional Practice****(2 Units)**

The law and ethical rules and codes of conduct guiding the practice of Estate Surveying and Valuation Profession in Nigeria. Comparison with selected countries of the world. Critical examination of legal stipulations guiding the above. Estate management professional practice as a classic example of entrepreneurial business organization developed and strictly operated in ethics and morality.

**STRESS AREAS FOR MRE PROGRAMME:**

	<b>Stress Area Number</b>
- Foundation: ICT and Research Methodology/Quantitative Techniques in Estate Management, Professional Practice & Entrepreneurship Studies	0
-Valuation: Land/Agricultural/Environmental & Cultural Artifacts & Sacred Objects/Lands Plant & Machinery and Insurance/Mineral.	1
-Land Policy/Resource Economy and Development	2
-Land Use Planning	3
-Land Taxation & Administration of Public Property	4
-Property Management/Facility Management	5
-Feasibility & Viability Appraisal/Project Management, Investment Analysis/Portfolio Management	6
-Real Estate Development Finance Securitization/Housing Strategies	7
-Research Project Seminar	8
- Research Project Report and Oral Defence	9

The 3–digit numbering of courses is adopted for the programme. The first digit stands for the year of study; the second for the stress area and the third for the serial number of courses within a stress area, reflecting the odd and even number endings for first and second semesters, respectively.

**MRE CURRICULUM TABLE:****FIRST SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>Units</b>
<b>Compulsory/Core Courses</b>		
PGC 601	Research Methodology and Application of ICT in Research	3
ESM 603	Advanced Professional Practice and Entrepreneurship2 Studies	2
ESM 611	Applied Property Valuation: Land & Building Agric, Compensation, Cultural Artifacts, etc.	3
ESM 621	Applied Land Policy	2
ESM 651	Advanced Property Management	2
ESM 661	Applied Feasibility & Viability Appraisal and Project Management.	2
	<b>Electives (2 no.)</b>	<u>4</u>
	<b>Total</b>	<b><u>18</u></b>

**Elective Courses**

*(Select 2 Courses of 4 Units from the following 3 Electives)*

ESM 631	Applied Land Use Planning	2
ESM 641	Applied Property Rating & Land Taxation	2
ESM 671	Applied Real Estate Development Finance & Securitization	2

**SECOND SEMESTER:**

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Units</b>
<b>Compulsory Core Courses</b>		
ESM 602	Quantitative Techniques and Computer Application in Estate Management	2
ESM 612	Applied Minerals, Plant & Machinery and Insurance Valuations	2



ESM 652	Advanced Facility Management	2
	<i>Electives (2 no.)</i>	4
	<b>Research Project</b>	
ESM 682	Research Project Seminar	3
ESM 692	Research Project Report/Oral Defence	6
	<b>Sub-total</b>	<b>19</b>
	<b>Total</b>	<b>37</b>

**Elective Courses**  
(Select 2 Courses of 4 Units from the following 5 Electives)

ESM 622	Applied Land Economy and Resource Development	2
ESM 614	Environmental Valuation	2
ESM 642	Administration of Public Property	2
ESM 662	Investment Analysis and Portfolio Management	2
ESM 672	Housing Economics	2

**MRE COURSE DESCRIPTION :**

**FIRST SEMESTER**

**PGC 601: Research Methodology and Applications of ICT in Research (3 units)**

Definition and Types of Research; Research Process including sources; organization; steps in conducting a review of literature and citation styles. Research designs. Proposal Pre-analysis of planned measurements. Methods of data collection and the measurement processes, blunders, systematic errors, precision, and accuracy. Statistical techniques for describing and drawing inference from research data: Hypothesis Testing. Mathematical modeling of real life problems. Types and steps of modeling. The Use of ICT tools in the accomplishment of the above process. ICT Terminologies: Hardware and Software components; Internet and World Wide Web; Web Browsers and Search utilities; Text processing and Presentation tools, ICT Research Tools.

Methods of project/dissertation writing and the format for presenting research results: preliminaries, table of contents, grammatical style, main text, referencing/bibliography, and appendix.

All registered Master's degree students must attend a solution-based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course, conducted by selected experts.

**ESM 603: Advanced Professional Practice and Entrepreneurship Studies (2 Units)**

Survey of real estate business opportunities and organizations in Nigeria, and comparison with counterparts in developed economies. Case studies of failed, flourishing/enduring real estate businesses, corporations and consultancy partnerships. Professionalism: meaning and challenges. Partnerships and company formation procedures and laws. Job procurement methods: proposals and retainership, tendering, personal selling and service marketing. Entrepreneurship and entrepreneur: Concepts, characteristics: Innovation, creativity, strategic choices and decisions, small businesses and corporations, enterprise life cycle. Management functions, theories/styles of leadership, effectiveness and efficiency in managing and leasing.

**ESM 611 – Applied Property Valuation (2 Units)**

Critical review of the property valuation methods. Frameworks and techniques of modern investment method of valuation: equated yield, rational and real value capital asset pricing, Arbitrage, hedonic etc models. Valuation mathematics, applications of statistical and other quantitative and computer techniques. Property market analysis including market on or under sea bed. Environmental Impact, compulsory and other statutory valuations. Valuation cases; Farm, crops and economic tree valuations; Role of the valuer as expert witness. Conceptual framework for executing valuation assignments/briefs. Valuation issues in asset declaration by public servants valuation of infrastructures: roads etc.

Documentation and broad locational distributions of cultural artifacts, sacred places, objects and lands in Nigeria. Comparison with what is obtaining in selected countries of the world. Buy-back negotiations and valuations for

recovery of national cultural artifacts and sacred objects lost to other countries. Legal bases for protection and valuation, traditional and modern techniques for their valuations.

**ESM 621: Applied Land Policy (2 Units)**

Objectives and manifestations of land policies. Urban and rural. The nature of customary tenure in economic and social structure of selected countries in West Africa Land Policies. Comparative study of land policies and their implementation in selected developed and developing economies. Land policy and economic development. Machineries and procedures of Land Administration. Dynamics of land tenure in economic and socio political development advanced economies and comparison with Nigeria's proprietary land structure. Structural Analysis of Nigerian Land Policy (urban and rural): Based on different types of land use: agricultural, residential; etc; and based on tenure; proprietary, leasehold, tenancy, etc. critical review of the Land Use Act 1978.

**ESM 631: Advanced Land Use Planning (2 Units)**

Application of general planning principles to the development and redevelopment of urban and rural communities. The role of transportation and communication in town, country and regional development. Transportation planning as a means of integration and equilibrium of town, country and regional inequalities. Housing policies and legislation in Nigeria. Respective towns and their respective space and sitting requirements. The role of public and private developers. Planning balance sheets and goal achievement matrix. Valuation treatment of complex compensation – betterment issues. A critical evaluation of the statutory basis of town and country planning in Nigeria and comparison with experience of selected countries of the world. Field project whereby real urban, rural and regional planning problems are studied under guidance and practical solutions proposed by the students.

**ESM 641: Applied Land Taxation & Property Rating Practice (2 Unit)**

Land as an object of taxation. Taxation of income, capital, capital transfer and estate duty etc. Rating as a major source of local government finance. Taxation as a major source of State and National government finance. Legal frameworks for imposition. Valuation, collection and appeal. Rating and taxation as Policy Instrument in Society. Valuation techniques. The use of Computer and quantitative techniques. Comparison with position in selected countries.

**ESM 651: Advanced Property Management (2 Units)**

Property management in relation to social, political, economic, physical, spiritual and legal concepts of land. Motives, policies and objectives of estate owners, and the choice of alternative strategies by the estate manager to achieve them. Management of public and private estates residential, commercial, special service etc. Professional standards relating to management of landed property. Leasing and tenancy agreement. Structural survey practices. Measurement of property performance. Legislation affecting property and property right. Landlord and tenant, dilapidations and dangerous properties, tort and nuisance. Housing policies and laws,. Property life cycles and development and redevelopment strategies. Statistical techniques and application of computer. Asset Management Corporation of Nigeria (AMCON), Privatization of Public Properties, etc.

**ESM 661: Applied Feasibility & Viability Appraisal and Project Management (2 Units)**

Concepts, scientific and other dimensions of traditional and modern decision appraisals, feasibility and viability indicators and tests. Statistical and other forecasting techniques. Risk analysis, techniques: Sensitivity tests scenario and simulation analysis etc. Follows-up appraisals, Critical path analysis. Treatment of capital recoupment, depreciation, finance charges and taxation in project appraisal. DCF and Accounts formats of presentation of financial appraisal.

Techniques for Organizing and Managing Development Projects and Project Teams. Principles and Case Studies of Strategies including Psychological Aspect of Stress Management and Leadership. The Use of Critical Path Analysis Technique; System Development and Risk Management; Contract Law and Leasing Strategy, Project Evaluation and Review Techniques and Other Operational Research Techniques; and Statistical Control of Quality and Risk; Methods of Organization and Control; An Overview of Contract Procurement Systems and Integration of Project Management; Decision Making and Project Managers.

**ESM 671: Applied Real Estate Development Finance and Securitization (2 Units)**

Definition of securitization; Economics of securitization, Real Estate Investment Trusts (REITs); Development finance and funding; contemporary issues, lending and risk; Finance and asset management. Mortgage Backed Securities(MBS): nature and operations.

## **SECOND SEMESTER**

### **ESM 602: Quantitative Techniques and Computer Application in Estate Management (2 Units)**

Input data for various quantitative analyses; measurement, processing analysis and presentation. Applications of Statistics techniques and computer in valuations and various aspects of estate management: descriptive inferential and probability; Linear programming and simulation analysis; GIS in real estate practice; Computer and micro-computer system; software packages for estate management professionals; property appraisal application; Real estate Analysis application Software's including Residential Estimator 7, LinkWM, REIA V14' Prolease, and Ontarget 401.

### **ESM 612: Applied Mineral, Plant & Machinery, and Insurance Valuations (2 Unit)**

Principles of mineral surveying, factors affecting value, royalty method of valuation; Residual value, mineral classification; legal framework for compulsory acquisition and compensation, the structure of joint ventures and the role of tax models in mineral valuation, Features of the Mineral and Mining Industry, Non renewable resources, Scale of capital investment, Pattern of cash flows. Valuation of human structure, Disparity between cost and value, Property, Plant, machinery and Equipment depreciation, depletion and amortization, Asset categories, Cost model and revaluation model. Decommissioning Costs and Site Restoration; nature and recognition of cost, recognition of liability, amortization and, accretion respectively. Issues in Insurance Valuation.

Conceptual definitions and identification of plant and machinery. Survey inspection and determination of functional and economic lives and efficiency of plant and machinery. Various purposes, approaches and methods of valuation of plant and machinery. Statutory enactments and case law decisions. Special problems in Nigeria and solutions. Components of the assessment, bases and techniques. A critical appraisal of the legal bases for the above. Insurance policies and clauses. Disparity between cost and value, Depreciation, depletion and amortization, Asset categories, Cost and revaluation model.

### **ESM 614: Applied Environmental Valuation (2 Units)**

Theory of environmental economics. Environmental impact assessment of various developmental and resource exploitation/pollution-generating activities. Concepts of environmental valuation, use and non-use values. Basis and methods of environmental valuation: market based, preference and revealed techniques: hedonic, travel cost, contingent valuations, benefit transfer, etc. Valuation of contaminated land: oil pollution spillage, gas flaring and cleaning. Wetland resources and valuation. Wildlife and cultural heritage valuations. Critical evaluation of legal enactments on these. Environmental problems and policy issues, risk and uncertainty, efficiency, market failure, public goods and externalities.

### **ESM 622: Applied Land Economy and Resource Development (2 Units)**

The economics of urban and rural land uses. The economics and politics of land resources exploitation and conservation. Implications of efficient land use and effective management of land resources; Issues in urban management, regeneration strategies.

Proprietary land resources. Complementarily and reciprocity of relationship. Predisposing functions and antecedents. The law of proprietary magnitudes and universal provisions. Cultural and sacred land uses. Regional and rural development. Motives of land ownership, decision making. Social and other objectives in the process of land development.

### **ESM 642: Applied Public Property Administration (2 Units)**

Principles of escheat, recovery of public property. The use of quantitative techniques and computer in administration of public properties. Critical evaluation of privatization and its achievements. Probate Valuation: the enabling statutes, principles and procedures. Grants of letters of administration and associated matters.

### **ESM 652: Applied Facility Management (2 Units)**

Concept, development and scope of facility management, competence areas and technologies for developing facility management (real estate finance, planning, project management operations and maintenance. Human and environmental factors, quality assessment and innovation; communication), Building fabric and services management; Budgeting, office productivity measurement and operation management. The use of Facility Management information system; Computer aided facility management (CAFM). Computer Integrated Facility management (CIFM); and relevant technologies. Corporate Real Estate Management, Procurement and Supply Chain Management. Role of the facility manager; space planning and management; legal issues; occupational costs; energy management.

**ESM 662: Applied Investment Analysis and Portfolio Management (2 Units)**

Investment aims and investment options. Characteristics of property investment. Analytical investment techniques: the risk return criterion, comparative techniques used for property and other investment fields. Critical appraisal and applications of modern property investment analysis techniques: DCF/Equated Yield/Real Value Models, etc. Concepts of Portfolio and Portfolio management; Evolution of portfolio management, performance measurement and analysis; objectives, purposes, and process of portfolio management; objectives and purposes of portfolio performance measurement and analyses. Measurements of return: Time weighted rate of return, Money weighted rate of return; Portfolio strategy; tracking on index; selection of optimal portfolio: Economics of information. Risk analysis techniques: unsystematic and systematic; Efficient frontier, CAPM. Decision making with continuous variables; Investment aims and investment options. Fundamental and technical analyses of equity, gilts and indexed stocks and other securities.

**ESM 672: Housing Economics (2 Unit)**

Urban Growth theories and trends (population and infrastructure, Housing Finance and markets; Building materials functionality and affordability; Housing provision agencies (Public and Private); Analysis of Nigerian Housing Policies; land use regulation; Housing programmes, management techniques and case studies in Nigeria; Lessons from self-help housing project in developing countries.

**STRESS AREAS FOR M.SC PROGRAMME:**

	<b>Stress Area Code/Number</b>
- Foundation: Research Methodology/Application of ICT in Research, Quantitative Techniques in Estate Management.	0
- Land Policy/Resource Economy and Development	1
- Land Use Planning	2
- Valuation: Land/Agricultural/Environmental; Cultural Artifacts/Sacred Objects and Lands; Mineral, Plant & Machinery, and Insurance.	3
- Property Management/Facility Management	4
- Land Taxation and Administration of Public Property	5
- Real Estate Development Finance & Securitization/ Housing Strategies	6
- Feasibility & Viability Appraisal/Project Management Investment Analysis/Portfolio Management	7
- Research Project Seminar	8
- Research Project Report and Oral Defence	9

**M.Sc CURRICULUM TABLE:****FIRST SEMESTER**

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Units</b>
<b>Compulsory/Core Courses</b>		
PGC 601	Research Methodology & Application of ICT in Research	3
ESM 611	Advanced Land Policy	2
ESM 631	Applied Valuation: Land & Buildings, Agricultural, Compensation, Cultural Artifacts, Sacred Objects/Lands, etc	3
ESM 671	Advanced Feasibility & Viability Appraisals and Project Management	2
	<i>Electives (3 no.)</i>	<u>6</u>
	<b>Sub-total</b>	<b><u>16</u></b>

**Elective Courses****(Select 3 Courses of 6 Units from the following 4 Electives)**

ESM 621	Advanced Town & Country Planning	2
ESM 641	Advanced Property Management	2
ESM 651	Advanced Property Rating and Land Taxation	2
ESM 661	Advanced Real Estate Development Finance & Securitization	2

**SECOND SEMESTER**

<b>Compulsory/Core Courses</b>		<b>Credit Units</b>
ESM 602	Quantitative Techniques & Computer Applications in Estate Management	2
ESM 612	Advanced Land Economy and Resource Development	2
ESM 632	Advanced Mineral, Plant & Machinery, and Insurance Valuations	2
	<i>Electives (3 no.)</i>	<u>6</u>
	<b>Sub-total</b>	<b><u>12</u> 28</b>

**Elective Courses****(Select 3 Courses of 6 Units from the following 5 electives)**

ESM 634	Environmental Valuation	2
ESM 642	Advanced Facility Management	2
ESM 652	Advanced Land Taxation and Public Property Administration	2
ESM 662	Housing Strategies	2
ESM 672	Advanced Investment Analysis and Portfolio Management	2

**THIRD SEMESTER**

		<b>Units</b>
ESM 683	Research Project Seminar	3
ESM 693	Research Project Report & Oral Defence	10
	<b>Sub-total</b>	<b><u>13</u></b>
	<b>Grand Total</b>	<b><u>41</u></b>

**M.Sc COURSE DESCRIPTION****FIRST SEMESTER****PGC 601: Research Methodology and Application of ICT in Research (3 Units)**

Definition of Research; Types of Research; Research Process: Selection of problem and Literature Review: including sources; organization; steps in conducting a review of literature and citation styles. Study of various research designs. Research Proposal & costing. Pre-analysis of planned measurements. Methods of data collection; Primary and secondary data. The measurement process, blunders, systematic errors, precision, and accuracy. Statistical techniques for describing and drawing inference from research data: including frequency distributions, bar charts and histograms; measures of central tendency, measures of variability, correlation; Hypothesis Testing. Mathematical modelling of real life problems. Types and steps of modeling. Statistical Analysis and Interpretation of results.

The Use of ICT tools in the accomplishment of the above process. ICT Terminologies: Hardware and Software components; Internet and World Wide Web; Web Browsers and Search utilities; Text processing and Presentation tools, ICT Research Tools.

Methods of project/dissertation writing. The format for presenting research results (from designing the table of contents to referencing, bibliography and appendix).

All registered Masters Degree students must attend a solution-based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course, conducted by selected experts.

**ESM 611 - Land Policy** (2 Units)

Concepts of land reform, objectives and types of land policies. Urban and rural land policies and their manifestations. The nature of customary tenure in economic and social structure of selected countries in Africa. Application of policies to real estate and land legislations. Comparative study of land policies of selected developed and developing economies. Impact of land policy on development. Comparative land reforms. Concepts of land and their implications for land policy. Evaluation of land policies. National and regional parks. Forestry and economic development. Recreational problems of ecology.

**ESM 621: Advanced Town and Country Planning** (2 Units)

Application of general planning principles to the development and redevelopment of urban and rural communities. The role of transportation and communication in town, country and regional development. Transportation planning as a means of integration and equilibrium of town, country and regional inequalities. Housing policies and legislation in Nigeria. Respective town and their respective space and sitting requirements. The role of public and private developers. Planning balance sheets and goal achievement matrix. Valuation treatment of complex compensation – betterment issues. A critical evaluation of the statutory basis of town and country planning in Nigeria and comparison with experience of selected countries of the world. Field project whereby real urban, rural and regional planning problems are studied under guidance and practical solutions proposed by the students.

**ESM 631 – Applied Land Valuation** (3 Units)

Framework for modern valuation. Valuation mathematics, Statistical and other quantitative techniques such as multiple regression analysis, expert system etc. Property market analysis including resources/market on or under the sea bed. The use of computer in property valuation. Explicit incorporation of risk in valuation. Equated yield, Rational and real value models. Compulsory and other Statutory valuations, Valuation cases, Role of the valuer as expert witness. The bases and various techniques for valuation of farms, crops, trees, plant and machinery and other components of agricultural property for various purposes. Critical evaluation of legislations respecting agricultural property valuation.

Documentation and broad locational distributions of cultural artifacts, and sacred places, objects and lands in Nigeria. Comparison with what is obtaining in select countries of the world. Buy-back negotiations and valuations for recovery of national cultural artifacts and sacred objects lost to other countries of the world. Legal bases for protection and valuation. Traditional and modern techniques employed in their valuations.

**ESM 641 – Advanced Property Management** (2 Units)

Property management frameworks: social, political, economic, physical, spiritual and legal. Motives, policies and objectives of estate owners, and the choice of alternative strategies by the estate manager to achieve them. Management of private estates: residential, commercial, industrial, agricultural recreational and sacred properties. Professional standards relating to management of landed property. Leasing and tenancy agreement. Structural surveying practices. The management of public properties. Urban, rural and sacred properties. Measurement of property performance. Legislation affecting property and property rights. Landlord and tenant laws. Dilapidations, Dangerous properties, tort, and nuisance. Housing policies and law. Property life cycles and development and redevelopment strategies. The use of statistical tools and techniques. The application of computer in property management: the estate terrier, d-base etc.

**ESM 651 – Advanced Property Rating and Land Taxation** (2 Units)

Rating as a major source of local government finance. Taxation as a major source of State and National government finance. Property rating, taxation of income, capital, capital gains, transfer and estate duty etc. valuations. Legal frameworks for imposition. Valuation, collection and appeals. Rating and taxation as Policy Instrument in Society. Valuation techniques. The use of Computer and quantitative techniques. Comparison with position in select countries. Land taxation reforms. Land taxation measures for controlling land use.

**ESM 661 - Advanced Real Estate Development Finance & Securitization (2 Units)**

Definition of securitization; Economics of securitization, Real Estate Investment Trusts (REITs); Development finance and funding; contemporary issues, lending and risk; Finance and asset management, Mortgage-backed securities (MBS): nature and operations.

**ESM 671 – Advanced Feasibility & Viability Appraisals and Project Management (2 Units)**

Concepts, scientific and other dimensions of traditional and modern decision appraisals, feasibility and viability indicators and tests. Statistical and other forecasting techniques. Risk analysis, Sensitivity tests. Follows-up appraisals, Determination of the four key input variables in DSF appraisal of development projects. Accounts format of presentation of financial appraisal.

Project team management techniques including psychological aspect of stress management and leadership; case studies of strategies and techniques for organizing and managing development project and the project team; the use of Critical Path Analysis programme; Quantity System development and risk management; contract law and leasing strategy, project evaluation and review techniques and other operational research techniques; statistics and statistical control in quality and risk management, methods of organizing and control; An overview of contract procurement systems and their integration into project management; Decision making and project managers.

**SECOND SEMESTER**

**ESM 602 - Quantitative Techniques and Computer Application in Estate Management (2 Units)**

Methods of data collection, analysis and presentation, GIS in real estate practice; frequency distribution builds and graphics; measures of central tendency and dispersions; Normal curve and other probability distribution models: poisson, exponential binomial etc. Regression and correlation analysis; Linear programming and simulation analysis; Application of valuations and various aspects of estate management, Valuation mathematics; Use of computers in property valuation. Computer and micro-computer system; software, packages for estate management professionals; property appraisal application; Real estate Analysis application Software's including Residential Estimator 7, LinkWM, REIA V14' Prolease, and Ontarget 401.

**ESM 612: Advanced Land Economy and Resource Development (2 Units)**

The nature of land tenure in economic and socio political structure of different societies, Proprietary land use structure analysis; Land reforms and their implications; The economics of urban and rural land uses. The economics and politics of land resources exploitation and conservation. Implications of effective land use and efficient management of land resources; issues in urban management, regeneration strategies life cycle of development. Property in land resources. Motives and complementarities. Reciprocity of relationship. Predisposing functions of antecedents. The law of proprietary magnitudes and universal provisions. Changing urban settlement pattern and spatial distribution of industry, residential, commercial, recreational cultural and sacred land uses. Regional and rural development. Land ownership. Motives and decisional Making. Social and other objectives in the process of land development.

**ESM 634: Applied Environmental Valuation (2 Units)**

Theory of environmental economics. Environmental impact assessment of various developmental and resource exploitation/pollution-generating activities. Concepts of environmental valuation, use and non-use values. Basis and methods of environmental valuation: market based, preference and revealed techniques: hedonic, travel cost, contingent valuations, benefit transfer, etc. Valuation of contaminated land: oil pollution spillage, gas flaring and cleaning. Wetland resources and valuation. Wildlife and cultural heritage valuations. Critical evaluation of legal enactments on these. Environmental problems and policy issues, risk and uncertainty, efficiency, market failure, public goods and externalities.

**ESM 632 : Advanced Mineral, Plant & Machinery, and Insurance Valuations (2 Units)**

Principles of mineral surveying, factors affecting value, royalty method of valuation; Residential value, mineral classification; legal framework of compulsory acquisition of minerals and compensation, the structure of joint ventures and the role of tax models in mineral valuation: Features of the Mineral and Mining Industry, Non renewable resources, Scale of capital investment, Pattern of cash flows. Valuation of human structure, Disparity between cost and value, Decommissioning costs and land/site restoration, Property, Plant and Equipment Depreciation, depletion and amortization, Asset categories, Cost model and revaluation model. Nature and extent of requirement, recognition of cost, recognition of liability, amortization of cost, accretion of liability. The Minerals and Mining Act Cap M12, LFN 2004.

Conceptual definitions and identification of plant and machinery. Survey and determination of functional and economic lives and efficiency of plant and machinery. Various purposes for which plant and machinery valuation may be required. Approaches and methods of valuation of plant and machinery. Statutory enactments and case law





**Ph.D CURRICULUM TABLE**

*Year One*

*First Semester*

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Units</b>
<b>Compulsory/Core Courses</b>		
PGC 701	Research Grant Writing and Synopsis Writing	3
ESM 731	Land Valuation, Investment and Portfolio Analysis Philosophies	2
	<i>Elective (1 no.)</i>	<u>2</u>
		<b>7</b>
<b>Elective Courses</b>		
<i>(Select One (1) Course of 2 Units from the following 3 Electives)</i>		
ESM 741	Property and Facility Management Issues	2
ESM 761	Real Estate Development Finance, Securitization and Housing Issues	2
ESM 751	Property Rating and Land Taxation Philosophies	<u>2</u>

*Second Semester*

<b>Compulsory/Core Courses</b>		
ESM 712	Land Policy, Administration and Applications of GIS	2
	<i>Electives (2 no.)</i>	<u>4</u>
	<b>Sub-total</b>	<u><b>6</b></u>
		<b>13</b>
<b>Elective Courses</b>		
<i>(Select 2 Courses of 4 Units from the following 3 Electives)</i>		
ESM 722	Advanced Land Use and Resources Development Issues	2
ESM 732	Mineral, Plant & Machinery, Insurance, Cultural Artifacts, etc Valuation Philosophies	2
ESM 772	Feasibility & Viability Appraisal and Project Management Philosophies	2

*Year Two*

*First Semester*

ESM 791	Ph.D Thesis Research	
ESM 781	Ph.D Thesis Seminar I (Research Proposal) Presentation	3

*Second Semester*

ESM 782	Ph.D Thesis Seminar II in Progress	
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*Year Three*

*First Semester*

ESM 783	Ph.D Thesis Seminar II Final Presentation	3
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*Second Semester*

ESM 791	Ph.D Thesis Report/Oral Defence	<u>12</u>
	<b>Sub-total</b>	<b>18</b>
	<b>Grand Total</b>	<b><u>31units</u></b>

**Ph.D COURSE DESCRIPTION:**

*First Semester:*

**PGC 701: Synopsis and Research Grant Writing (2 Units)**

Identification of University of Nigeria synopsis structure and requirements, (Introduction, Methodology and Results). Determining the content of each sub-unit of the synopsis. Steps in writing of synopsis from the Dissertation/Thesis document, Structural and language issues. Common errors in synopsis writing and strategies for avoiding them. The roles of the student and the supervisor in the production of a synopsis. Writing of mock synopsis.

Identification of types and nature of grant and grant writing; mining of grants application calls on the internet. Determining appropriate strategy for each grant application. Study of various grant application structures and contents and writing of concept notes, detailed project description, budgeting and budget defense. Study of sample grant writings in various forms and writing of mock research and other grants.

All registered Ph.D students must attend a solution-based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course, conducted by selected experts.

**ESM 731: Land Valuation, Investment and Portfolio Analysis Philosophies (2 Units)**

Land Valuation – Rural and Urban Property, Infrastructure, Environmental, Compensation and Land Taxation.

Investment theory, Property Valuation and investment valuation, contemporary Investment valuation models. Compulsory land acquisition and Compensation.

Investment – Risk and Return in real estate investment, Traditional Risk

Analysis Adjustment Methods, Contemporary Risk-Return measurement methods: CAPM Arbitrage, etc.

Portfolio - Portfolio theory, Tracking on Index, Selection

Analysis of Optimal Portfolio, Data required for Property Portfolio Management, Comparison of available services, Economics of Information, Risk, Simulation, Decision making with continuous variables, Property Indices/Diversification Strategies.

**ESM 751: Property Rating and Land Taxation Philosophies (2 Units)**

Statutory Framework, Valuation Method and administration efficiency and canonical issues in such land taxes as property rate, rental income, capital gains, capital transfer probate, etc.

**ESM 741: Property and Facility Management Issues (2 Units)**

Facility Management – Incorporating the use of the integral Management (planning and monitoring of housing services and means that must contribute to an effective realization of the organization’s objectives in an ever-changing environment).

Property Management – Strategy for Estate owners and choice of alternatives to achieving owner’s objective (Financial or Pecuniary).

**ESM 761: Real Estate Development Finance, Securitization and Housing Issues (2 Units)**

Use of real estate credit; Sources – mortgages, pledges; lease back, contractor finance, insurance; Banks and other institutional lenders, mortgage-backed securities (MBS) and their associated issues in developed and developing economies.

**Second Semester:**

**ESM 712: Land Policy, Administration and Applications of GIS (2 Units)**

Land Policy – Land reform, Land tenure Instruments for Land Policy Comparative study of land policy of selected developed and developing economies. Impact of Land Policy on Land Use, Land Use regulation, Land redemption. Conceptualization of Land Policy Issues, Pragmatic Formulation and Implementation.

Application of GIS – User of GIS in Real Estate, Appraisal Review, Use of GIS for Business Cycle Analysis and Forecasting, Software Data and Management considerations in Establishing a GIS/Mapping System. Similarities and differences between Mapping and GIS, critical factors, softwares, Data, Management and Organizational Issues.

**ESM 722: Advanced Land Use and Resources Development Issues: (2 Units)**

Issues in Urban and Rural Land and Environmental Resource Planning Management and Utilization, Economic and non-economic analysis of issues, statistical expression of relevant issues, Arbitration and resolution of contending forces.

**ESM 732: Mineral, Plant & Machinery, Insurance, Cultural Artifacts, and Sacred Objects/Lands Valuation Philosophies (2 Units)**

Survey and determination of functional and economic lives and efficiency of plant and machinery. Critical review of the methods and various purposes of plant and machinery valuation. Issues in valuation for insurance Philosophical/religions issues in valuations of cultural artifacts and sacred objects. Critical examination of Socio-political, economic, philosophical, Statutory and methodical issues in Mineral Valuation.

**ESM 772: Feasibility & Viability Appraisal and Project Management Philosophies (2 Units)**

Understanding the framework, techniques and models and roles of cognate professionals. The use of computerized approaches, statistical forecasting and Networking techniques.