

## LIST OF COURSES FOR BACHELOR OF SCIENCE IN ARCHITECTURE PROGRAMME

### 7.1 FIRST SEMESTER 100 LEVEL ARCHITECTURE COURSES

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 111	Introduction to Design Studio I	2	1	0	4	C
ARC 121	Freehand Sketching I	2	0	0	2	C
ARC 131	Principles of Architecture	2	0	0	2	C
ARC 141/BLD 101	Building Construction & Materials I	2	0	0	2	C
ARC 151/GNS 101	Use of English I	2	0	0	2	C
ARC 153/GNS 103	People, Culture and Social Issues	2	0	0	2	C
ARC 171/MAT 101	General Mathematics I	3	0	0	3	C
ARC 173/ PHY 103	Physics I	3	0	0	3	C
EVM 141	Introduction to Surveying I	1	0	2	2	C
EVM 161	Introduction to the Built Environment I	2	0	0	2	C
<b>TOTAL</b>		<b>21</b>	<b>1</b>	<b>2</b>	<b>24</b>	

### 7.2 SECOND SEMESTER 100 LEVEL ARCHITECTURE COURSES

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 112	Introduction to Design Studio II	2	1	0	4	C
ARC 114/GNS 104	Basic Computer Application	2	0	0	2	C
ARC 122	Freehand Sketching II	2	0	0	2	C
ARC 142/BLD 102	Building Construction & Materials II	2	0	0	2	C
ARC 152/GNS 102	Use of English II	2	0	0	2	C
ARC 154	Principles of Environmental Psychology	2	0	0	2	C
ARC 172/MAT 106	General Mathematics II	3	0	0	3	C
ARC 174/PHY 106	Physics II	3	0	0	3	C
EVM 142	Introduction to Surveying II	1	0	2	2	C
EVM 162	Introduction to the Built Environment II	2	0	0	2	C
<b>TOTAL</b>		<b>21</b>	<b>1</b>	<b>2</b>	<b>24</b>	

### 7.3 FIRST SEMESTER 200 LEVEL ARCHITECTURE COURSES

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 211	Architectural Design Studio I	2	0	6	4	C
ARC 213	Principles of Landscape Design	2	0	0	2	C
ARC 221	Virtual Communication I	2	0	0	2	C
ARC 231	History of Architecture I	2	0	0	2	C
ARC 241/BLD 201	Building Construction & Material III	3	0	0	3	C
ARC 243/BLD 213	Building Structures I	2	0	0	2	C
ARC 251/GNS 201	History and Philosophy of Science	2	0	0	2	C
ARC 253/GNS 204	Introduction to French I	2	0	0	2	C
ARC 261/BLD 203	Building Services I	2	0	0	2	C
ARC 271/STA 101	Basic Statistics	3	0	0	3	C
<b>TOTAL</b>		<b>22</b>	<b>0</b>	<b>6</b>	<b>24</b>	

### 7.4 SECOND SEMESTER 200 LEVEL ARCHITECTURE COURSES

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 212	Architectural Design Studio II	1	0	6	4	C
ARC 214	Introduction to CAD	0	1	4	2	C
ARC 222	Virtual Communication II	2	0	0	2	C
ARC 232	History of Architecture II	2	0	0	2	C
ARC 242/BLD 202	Building Construction & Materials IV	3	0	0	3	C
ARC 244/BLD 214	Building Structures II	2	0	0	2	C
ARC 252/GNS 202	Political History and Governance in Nigeria	2	0	0	2	C
ARC 254/GNS 204	Introduction to French II	2	0	0	2	C
ARC 262/BLD 204	Building Services II	2	0	0	2	C
ARC 264	Building Climatology	3	0	0	3	C
<b>TOTAL</b>		<b>19</b>	<b>1</b>	<b>10</b>	<b>24</b>	

**7.5 FIRST SEMESTER 300 LEVEL ARCHITECTURE COURSES**

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 311	Architecture Design Studio III	2	0	16	6	C
ARC 331	History of Architecture III	2	0	0	2	C
ARC 341/BLD 313	Building Structures III	3	0	0	3	C
ARC 343	Working Drawing and Detailing	0	1	6	4	C
ARC 361/BLD 305	Building Services III	2	0	0	2	C
ARC 381/GNS 301	Entrepreneurial Skills	2	0	0	2	C
ARC 383/QTS 203	Tendering and Estimating	2	0	0	2	C
<b>SUB-TOTAL</b>		<b>13</b>	<b>1</b>	<b>22</b>	<b>21</b>	
<b>Electives: any 2 credit unit</b>						
EVM 411	Rural Settlement Planning	2	0	0	2	E
EVM 461	Traffic and Transportation Planning	2	0	0	2	E
<b>TOTAL</b>		<b>15</b>	<b>1</b>	<b>22</b>	<b>23</b>	

**7.6 SECOND SEMESTER 300 LEVEL ARCHITECTURE COURSES**

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 312	Industrial Training	0	0	0	6	C
ARC 314	Community Development Project	0	0	0	6	C
ARC 352	Reprot Seminar	0	0	0	3	C
<b>TOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	

**7.7 FIRST SEMESTER 400 LEVEL ARCHITECTURE COURSES**

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 411	Architectural Design Studio V	2	0	16	6	C
ARC 413	Urban Design	2	0	1	3	C
ARC 433	Theory of Architecture I	2	0	0	2	C
ARC 441/BLD 411	Building Structures IV	3	0	0	3	C
ARC 451	Research Methodology I	2	0	0	2	C
ARC 483/QTS 309	Introduction to Building Contract	2	0	0	2	C
<b>SUB-TOTAL</b>		<b>13</b>	<b>0</b>	<b>17</b>	<b>18</b>	
<b>Electives: any 2 credit unit</b>						
ARC 481/QTS 205	Building Economics	2	0	0	2	E
EVM 421	Sociology of Housing	2	0	0	2	E
<b>TOTAL</b>		<b>15</b>	<b>0</b>	<b>17</b>	<b>20</b>	

## 7.8 SECOND SEMESTER 400 LEVEL ARCHITECTURE COURSES

COURSE CODE	COURSE TITLE	COURSE DETAILS			CREDIT UNITS	REMARKS
		L	T	P		
ARC 412	Architectural Design Studio VI	2	0	16	6	C
ARC 414	Interior Design	2	0	0	2	C
ARC 432	History of Architecture IV	2	0	0	2	C
ARC 434	Theory of Architecture II	2	0	0	2	C
ARC 442/BLD 314	Building Structures V	3	0	0	3	C
ARC 452	Research Methodology II	2	0	0	2	C
ARC 482/GNS 302	Entrepreneurial Skills II	2	0	0	2	C
<b>SUB-TOTAL</b>		<b>15</b>	<b>0</b>	<b>16</b>	<b>19</b>	
<b>Electives: any 2 credit unit</b>						
ARC 462/BLD 306	Building Services IV	2	0	0	2	E
EVM 462	Urban Studies	2	0	0	2	E
<b>TOTAL</b>		<b>17</b>	<b>0</b>	<b>16</b>	<b>21</b>	

## 8.0 SYNOPSES OF COURSES

### ARC 111 Introduction to Design Studio I (4 units)

An introductory course to Architecture stressing the role of the Architect in the building industry and the society. Architecture as an art, science, a professional, relationship with other professions, design process, skills and tools, drawing and the various graphic communication media and reproduction equipment and materials, significant buildings in Architecture and their Architects.

### ARC 112 Introduction to Design Studio II (4 units)

Elements of architectural modelling with emphasis on wood, metal work and plastics in architectonics and three-dimensional communications.

Basic structural systems in architectural design: principles, historical development and spatial implications of form-active, bulk-active, surface active and vertical structures; influence of technology and climate, building elements, services; computer application in Architectural practice.

### ARC 114/GNS 104 Basic Computer Application (2 units)

These courses shall equip the students with basic understanding of computer as a tool in the practice of Architecture with emphasis on basic electronic principles, computer appreciation, computer hardware and peripherals, software application, elementary programming and office automation.

**ARC 121 Freehand Sketching I (2 units)**

Sketching and architectural drawing from life objects. The course aims at developing graphic language by which an architect explains buildings and other objects to himself and others using dry media such as pencils and crayons etc.

**ARC 122 Freehand Sketching II (2 units)**

Free hand drawing with greater emphasis on quick sketching techniques using wet media such as water and poster colours, inks etc.

Building ornamentation with emphasis on mosaic and mural designs, sculpture, ceramics, glass and textile designs.

**ARC 131 Principles of Architecture (2 units)**

Review of relevant sciences that inform the design process. Understanding design as a problem-solving skill and the relationship between knowledge and skill.

Conceptualisation in architecture; massing and space, space defining elements, types of space, space-scale and proportions.

Basic architectural forms, building envelope transformation and economics of materials, property and strength of materials, the influence of climate and culture on structural form.

**ARC 141/BLD 101 Building Construction and Materials I (2 units)**

The course aims at teaching site operations; basic building and construction techniques, regional variation in building art, materials and components, elements of building: foundations, floors, walls, roofs.

**ARC 142/BLD 102 Building Construction and Materials II (2 units)**

Detail study of elements of building for residential, industrial, and commercial and sub-soil conditions. Understanding drainage systems, and external works.

**ARC 154 Principles of Environmental Psychology (2 units)**

A course to enable the student to:

Understand the relationship between the individual, the society and the physical environment.

Understand social behaviour, interpersonal and group perception of the environment  
Understanding the concept of personal space, territorial behaviour, privacy and crowding.

Understanding the natural, built and urban environments and man's effect on them and vice versa.

Understanding the design considerations for unique institutions like prisons, psychiatric hospital etc

**EVM 141 Introduction to Surveying I (2 units)**

Linear measurement, chain over obstacles, levelling, plotting simple sections, measurement of horizontal angles in close and open traverses

**EVM 142 Introduction to Surveying II (2 units)**

Triangulation networks, procedure in the field, field record, use of bearing and co-ordinates and the setting out of buildings and simple roadwork. Interpretation of photogrammetric documents.

**EVM 161 Introduction to the Built Environment I (2 units)**

Series of lectures that expose the students to:

The different professionals involved in the building industry

Their roles, importance and responsibilities

Particular focus on; the Architect, Builder, Quantity Surveyor

**EVM 162 Introduction to the Built Environment II (2 units)**

Series of lectures that expose the students to:

The difference between the building and construction industry.

Particular focus on; the Estate Manager, Land Surveyor, Urban Planner and Project Manager.

**ARC 211 Architectural Design Studio I (4 units)**

A studio course using abstract designs to develop creative thinking, analytical skills and aesthetic sensitivity in architectural design. Architectural forms, principles of proportion, rhythm, harmony, contrast, texture, mass, volume etc. colour, tectonics and modeling in architecture.

**ARC 212 Architectural Design Studio II (4 units)**

Physical, morphology and attributes of space. Ordering of spaces, interior and furniture design. Architectural design process, site investigations/analysis, and functional relationships.

**ARC 213 Principles of Landscape Design (2 units)**

A theory and project course aimed at developing appreciation of natural and man-made landscape elements and their contribution in open space design (single building sites, urban/rural neighbourhood and urban landscapes).

Objectives, principles, elements and methods of landscape planning and design. Environmental constraints, landscape analysis and site planning. Principles of planning, design and selection; the use of natural resources e.g. vegetation, rocks, water etc.

**ARC 214 Introduction to CAD (2 units)**

Definition, use and functions of computer design aids, introduction to various design aid software; their capability and application within the profession and industry. Introduction of basic commands, operations and production of drawings using selected computer aided design tools.

**ARC 221 Virtual Communication I (2 units)**

Virtual communication through simple design projects and developing 3D drawings and models using cardboard or wood.

Introducing graphic design principles to enhance illustrations of buildings and the ability to explain various architectural forms. Standardization of drawings for presentation.

**ARC 222 Virtual Communication II (2 units)**

A studio course in techniques for the preparation and presentation of architectural drawings, techniques in rendering; principles of shades and shadows, elementary 2-point perspectives, introduction to monochromatic presentation techniques and photography.

Advanced techniques in preparation coding and rendering of architectural drawings, modular co-ordination as a tool in architectural design studio work. Advanced techniques in projection of perspectives and also 1-point interior, 2-point interior, aerial, 3-point exterior perspectives, etc. Application of other projections (e.g. axonometric, isometric etc.) in architectural studio work. The use of coloured presentation techniques in the architectural studio, scale and proportion.

**ARC 231 History of Architecture I (2 units)**

History of Architecture highlighting factors (e.g. philosophical, cultural, climatic, political, technological....) that gave rise to concepts, distinct forms, values, spatial content and other expressions, each illustrated with detailed individual examples.  
Particular attention on Egyptian, Greek and Roman Architecture.

**ARC 232 History of Architecture II (2 units)**

History of Architecture highlighting factors (e.g. philosophical, cultural, climatic, political, technological....) that gave rise to concepts, distinct forms, values, spatial content and other expressions, each illustrated with detailed individual examples.

Emphasis on Romanesque, Gothic, Islamic and Byzantine Architecture.

**ARC 241/BLD 201 Building Construction and Materials III (3 units)**

This course is designed to expose the student to the knowledge of basic building materials and their characteristics e.g. timber, stones, bricks, cement/sandcrete blocks etc. and to understand the various building elements and components, their construction and functional requirements e.g. foundations, walls, openings, floors, roofs and finishes.

**ARC 242/BLD 202 Building Construction and Materials IV (3 units)**

Explaining the properties of Building materials for the purpose of selection and appropriate use e.g. cast stone, composite products, glass, paints, steel, aluminium, traditional building materials: clay, thatch etc. the student should understand the choice of Building materials in relation to functional, structural, economic, health and aesthetic considerations and the elements of Building construction (load bearing elements, partitions, staircases, ramps, floors, ceilings, roofs, internal and external surface finishes and traditional construction methods.

**ARC 243/BLD 213 Building Structures I (2 units)**

Definition and conceptualization of basic principles of structural design. Structural decisions and physical factors affecting architectural forms. Basic structural systems and media and their applications to architectural space. Emphasis to be placed on the descriptive rather than quantitative approach.

**ARC 244/BLD 214 Building Structures I (2 units)**

Quantitative approach to the study of structures: statics – the study of forces, moments, shear, moment and shear diagrams, stress, tension and compression, conditions for equilibrium, support systems etc.



**ARC 261/BLD 203 Building Services I (2 units)**

Fundamentals of Physical Sciences with emphasis on light, water, heat, sound, electricity and machines.

Applications of electrical and mechanical devices in building design.

**ARC 262/BLD 204 Building Services I (2 units)**

Sources of water, types of water, quality of water and water pollution. Distribution of water, water pressure, velocity, demand/consumption calculations. Water installations; storage, reticulation, plumbing. Sanitary systems, sewage and waste disposal, drainage, sewage treatment.

**ARC 264 Building Climatology (3 units)**

Lectures on the impact of weather and climate on the practice of architecture; the effect of natural and man-made environment on buildings.

Particular application of climate, geologic, hydrologic, soil and vegetation conditions on buildings.

**ARC 311 Architectural Design Studio III (6 units)**

Research, investigation and concept development as the basis for architectural design. Design and planning of complex functional spaces with emphasis on the student's understanding of the elements of architecture.

Architectural resolution of special situations; sloping sites, urban sites, the integration of structures and landscape to urban building space, and the analysis of cityscape elements.

Emphasis on site planning and development. External space articulation with building forms. Projects to accentuate the organisation of a group of related buildings on a site. (Cultural awareness as they affect architectural design to be highlighted).

**ARC 331 History of Architecture III (2 units)**

History of Architecture highlighting factors (e.g. philosophical, cultural, climatic, political, technological....) that gave rise to concepts, distinct forms, values, spatial content and other expressions, each illustrated with detailed individual examples.

Pre-historical, Renaissance, Baroque, Rococo Architecture.

**ARC 341/BLD 313 Building Structures II (3 units)**

Qualitative and quantitative approaches to structural mechanics; force flow and structural configuration; structural mechanics and architectural design.

Fundamentals of strength of materials and theory of structures with emphasis on their application to architectural structures. The choice of materials of construction with regard to performance standards, durability, and resistance to applied load and aesthetics.

**ARC 343 Working Drawing and Detailing (4 units)**

This course is designed to expose the students to the knowledge of the documents/drawings required for construction works. The concept of working drawings as graphical communication between the Architect and the contractor, details as explanatory drawings of sections and elements, and variations in design arising from changing needs should be emphasized. Fully dimensioned drawings in appropriate scales, construction details of joints, stairs, structural elements etc. and the incorporation of building services should be stressed. At the end of the course, complete sets of working drawings shall be produced from a given presentation drawing.

**ARC 361/BLD 305 Building Services III (2 units)**

Fire prevention methods, protection equipment, control systems, classification, material/component ratings, means of egress, National fire Safety code.

**ARC 381/GNS 301 Entrepreneurial Skills I (2 units)**

The ability to identify a business opportunity and finding resources to optimally utilize the opportunity.

**ARC 383/QTS 203 Tendering and Estimating (2 units)**

Principles and procedures for 'taking-off' quantities for the preparation of bill of quantities. Approximate estimating using the following techniques: unit, cube, superficial area, storey enclosure, approximate quantities and elemental methods.

Accurate estimating by unit rate, gross and net pricing, "all-in rate", build up unit rates for the following, sections of work in a bill of quantities – excavation, concrete work, block work, frames, carpentry and joinery, metal work, finishing, painting and decorating, external work, roofing, iron mongering, doors and windows, plumbing and electrical installation, etc.

**ARC 411 Architectural Design Studio V (6 units)**

Problem solving at a higher level of complexity (Special attention to be paid to technical requirements such as bye-laws, waste disposal, construction materials, building structure land character, etc.)

Design application in simple Health, institutional and recreational facilities on urban sites with landscaping.

**ARC 412 Architectural Design Studio VI (6 units)**

Projects to concentrate on reinforcement of understanding and application of special technical/design requirements as derived from other supporting courses, such as Building Services, Building Structures, Environmental Science, Building Components and Methods etc. The student's individual vocabulary should be evident and expressed.

Projects to cover industrial, institutional, mass housing, entertainment etc.

**ARC 413 Urban Design (3 units)**

Theories of urban form; patterns of urban form, relationship between natural and man-made environments. Study of imageability – image of the city, Behavioural basis of design. Urban design process: lectures covering the aims and scope of urban planning-its social, economic and physical basis. Origins of modern town planning concentrating on planning problems – zoning densities, neighbourhood, central, industrial and economic area development, shopping/market precincts. Field study and design of urban forms and spaces.

**ARC 414 Interior Design (2 units)**

The course should emphasize design of responsive spaces through application of theories and data in (life) projects. Ideas of Architectural space (residential, commercial, industrial, institutional spaces). Indoor climates, lighting, colour, fabrics, composition and human responses.

**ARC 432 History of Architecture IV (2 units)**

History of Architecture highlighting factors (e.g. philosophical, cultural, climatic, political, technological....) that gave rise to concepts, distinct forms, values, spatial content and other expressions, each illustrated with detailed individual examples. Industrial revolution to the 19<sup>th</sup> century, modern and contemporary architecture.

Traditional Architecture: Nigerian, and at least 2 others from Japanese, African, Mayan and Aztec, Chinese and Indian Architecture.

**ARC 433 Theory of Architecture I (2 units)**

Series of lectures exposing methods of critical inquiry which students might use in their work and apply in assessing works other than their own.

Aesthetics and Architecture – the idea of beauty. The nature of criticism in architecture; its role and fundamental concerns. Methods of critical inquiry, types of investigations (philosophical, historical, semiotic, psychoanalytic, etc.). Illustrations with buildings and projects.

**ARC 434 Theory of Architecture II (2 units)**

Exposing the student to design concepts, determinants of forms, context, order coherence, simplicity and complexity.

In-depth analysis of theoretical issue relating to design with emphasis on some evolving directions in architectural education and practice both locally and globally.

**ARC 441/BLD 411 Building Structures III (3 units)**

A lecture/laboratory course to develop understanding of the behaviour of timber and reinforced concrete infrastructure.

**ARC 442/BLD 314 Building Structures IV (3 units)**

Design of simple structural components of these materials. Design of simple structural steel components. Design data: i.e. rolled steel sections, riveted and welded steel girders, principles of pressure welding, design of steel columns and compound struts.

Design project of simple structures in steel, reinforced concrete, or timber.

**ARC 451 Research Methodology I (2 units)**

Formulation and test of hypothesis. Identification of dependent and independent variables, parameters etc. sampling techniques, constraints and bias, design of questionnaire instruments, the conduct of interviews, data collection; handling and analysis, application of research techniques to workshops and field situations, introduction to computer hardware/software.

**ARC 452 Research Methodology II (2 units)**

Practical application of research procedures on various areas of societal issues with a view to recommending solutions.

**ARC 462/BLD 306 Building Services IV (2 units)**

Fundamentals of electric power generation, transmission and distribution. Electrical installation and equipment, load determination system. Electrical devices in building design. lighting appliances, lifts. Safety protection and energy conservation. Lighting arrestors.

**ARC 481/QTS 205 Building Economics (2 units)**

Some general terms in building economics. Cost planning as a design tool, factors governing building costs, price analysis, bill of quantities, cost criteria, cost research and estimating cost plans.

**ARC 482/GNS 302 Entrepreneurial Skills II (2 units)**

The course encompasses feasibility land viability studies, market opportunity identification analysis, capital acquisition, production management and cost control, risk analysis and management.

**ARC 483/QTS 309 Introduction to Building Contract (2 units)**

Elements of contract law. Basic principles of tort. Elements of property law. Nature/types of building contract. Agency, liability, indemnity, Insurance, Arbitration, Statutory regulations/acts.

**EVM 411 Rural Settlement Planning (2 units)**

Basis for settlement and settlement pattern, village planning and community development, supported with village and village centre surveys.

Rural land use issues; rural population and settlement; forms, structure and growth patterns, migration and rural population dynamics. Interplay of ecological and economic factors related to spatial distribution of agricultural, industrial, commercial and infrastructural emplacements in rural settings.

**EVM 462 Urban Studies (2 units)**

The course will study growth factors and forms of cities, dimensioning urban land use problems, space allocation standards.

Methods of study and projection of; land use, demographic and economic data. The concept of ecology as applied to the natural environment.

The use and abuse of natural resources; land, air water etc.