

YEAR 1 BACHELOR OF ARCHITECTURAL STUDIES COURSE OUTLINE

SEMESTER 1

Course Code	Course	Hours	Examination
CCS 001	Communication Skills	45	1 x 2hr paper
BAR 101	Building Technology & Services 1	45	1 x 2hr paper
BAR 103	History & Theory of Architecture 1	45	1 x 2hr paper
BAR 105	Mathematics for Architecture	45	1 x 2hr paper
BAR 107	Geology/Climatology	45	1 x 2hr paper
BAR 113	Architectural Design 1	240	By Coursework

SEMESTER 2

Course Code	Course	Hours	Examination
BAR 102	Building Technology and Services 2	45	1 x 2hr Paper
BAR 104	History And Theory of Architecture 2	45	1 x 2hr Paper
BAR 106	Sociology	45	1 x 2hr Paper
CCS 009	Elements of Economics	45	1 x 2hr Paper
BAR 108	Anthropology	45	1 x 2hr Paper
BAR 114	Architectural Design 2	240	By Coursework

COURSE DESCRIPTION

CCS 001 COMMUNICATION SKILLS

45 Hrs

Overview of the communication process in relation to reading, writing, and speaking skills; the nature of the reading process with a focus on the evaluation of bottom-up, top-down and interactive models; important factors in readability; cohesion, coherence, sentence length and complexity, organization; paragraph structure and reader strategy; fundamentals factors in effective writing process; principles of development in expressive, informative argumentative and persuasive writing skills, exploring works and meanings; denotations, connotations, metaphors, euphemisms and clichés; report writing; writing a research or library paper plagiarism and how to avoid it. Transcoding; mechanics or oral presentation techniques in seminars; tutorials, public places; listening in academic contexts. Information skills; public places; listening in academic contexts. Information skills; information sources, types of libraries; reference works and techniques; information technology, evaluation of information sources; classification schemes.

BAR 101 BUILDING TECHNOLOGY AND SERVICES 1

45 Hrs

Building technology in history across the world. Introduction to different ways of thinking about construction in relation to design practice. Investigation of the artifactual nature and materiality of buildings. Outline of construction principles and their implications to the development of construction strategies in architectural design. Introduction to building material science.

BAR 103 HISTORY AND THEORY OF ARCHITECTURE 1

45 Hrs

Cultures and Builtform across the world. Built form as an expression of societal, technological, environmental and humane parameter as emergent through architectural language of world cultures. Cultures of Africa and their built forms. Analytical understanding of builtforms in world cultures to establish common fundamentals. Use of case studies.

BAR 105 MATHEMATICS FOR ARCHITECTURE

45 Hrs

Mathematics specific to Architecture and Engineering applications. Calculus; Differentiation, partial differentiation, maxima and minima. Introduction to differential equations, Integration, basic formula, by parts, successive integration, application to area length, areas. Plane analytic geometry; fundamental concepts, standard form, general equation and properties of straight line, circle, parabola, ellipse and hyperbola. Calculations for area of plane regular shapes by algebraic and

trigonometric methods and irregular shapes by approximate methods. Conic coordinates. Solid geometry; fundamental concepts, the plane, straight line, space loci and quadric surface.

BAR 107 GEOLOGY / CLIMATOLOGY

45 Hrs

Geology

Surface of the earth as the base of man's structured environment. Origin and development of the earth's structure. The geological processes and their influence on Architecture. The earth's crust \with a special reference to Kenya.

Climatology

Introduction to Meteorology and Climatology, Meteorological parameters; Radiation, temperature humidity, precipitation. Septic climatology; modification of climate by man, air pollution; long term and short term climate change. Influence of climate on Architecture.

BAR 113 ARCHITECTURAL DESIGN 1

240 hrs

Introduction to Design Theory. Proportions and Scales, Light and Perception. Sensory and Psychological order. Freehand drawing and painting, colour theory, graphic techniques and 3D assemblage. Exploration of visual observation, expression and communication through the medium of lines, areas and compositions, tones, scales and proportions. Basic skills in the use of various materials and techniques for representation. Exploration of sensitive perception of the primary elements of space; point, Line, plane, volume, mass, texture and color.

BAR 102 BUILDING TECHNOLOGY AND SERVICES 2

45 Hrs

Building materials - Technical characteristics, rock, stone and soils. Cementing materials, mortars and concrete, bricks, blocks and tiles. Metals, wood, plastics, glass. Thermal insulation principles and materials. Moisture insulation principles and materials.

BAR 104 HISTORY AND THEORY OF ARCHITECTURE 2

45 Hrs

Analytical themes in traditional art and architecture of the sub-Saharan Africa. Technology in African architecture Role of culture and symbolism in the development of built-form in African settlements. New forms and directions in African architecture. Sustainability of the built environment within the wider socio-economic context.

BAR 106 SOCIOLOGY

45 Hrs

Introduction to principles of sociological studies and analysis. Social structure and its influence on Architecture, social institutions and their architectural manifestation. Dynamics of social change in Kenya. The community and its characteristics, criteria for assessment of community needs of Built amenities- Health, Education, Housing, Rural urban migration and the urbanisation process in Kenya and their implication on Planning Architecture

CCS 009 ELEMENTS OF ECONOMICS

45 Hrs

(As per the description of the Board of Common Undergraduate courses)

BAR 108 ANTHROPOLOGY

45 Hrs

The concepts of culture; manifestations and characteristics, paradigm for cultural anthropology; cultural evolution, verbal and non-verbal communication and their world and local contexts; economic adaptation and social forms; food getting systems and their impact on social forms' political organizations; social order and disorder; power and authority in society in Africa and world; behavior control, formal and informal sanctions; culture and personality in the world and local contexts; belief systems; religion , magic, sacred and profane in the world and local contexts; culture change and issues in the contemporary world; social stratification and changes in the third world, peace and conflict; material culture; nature manifestations and characteristics. Black Aesthetics and the diaspora. An investigation of African cosmological, metaphysical, ontological and ethical world views. An examination of African music, drama, art, poetry and architecture for

their themes, motifs and idioms that define their “Africanness”

BAR 114 ARCHITECTURAL DESIGN 2

240 Hrs

The solution of simple design problems each exploring an aspect of the primary elements of architecture. Shade and Shadow; Technical illumination, Technical line shadow in orthographic projection of front and top views. Curved elements in shade and shadow. Application to axonometric and perspective drawing. Exploration of visual observation, expression and communication through pattern, texture, light, colour and kinetics. Basic skills in free-hand sketches and perspectives in various media. Exploration of design vocabulary through light and movement, scale and proportion, rhythm and balance, harmony and contrasts, kinetics and effects.