SCHOOL OF ARCHITECTURE AND BUILT ENVIRONMENT
PROGRAM OUTCOMES

DEPARTMENT OF ARCHITECTURE

PROGRAMME LEARNING OUTCOMES

By and large, graduates acquire knowledge and understanding, intellectual, practical and transferable creative skills and dexterity in the analyses and synthesis into workable durable solutions, of emerging challenges of the built environment in the nation of Rwanda. These graduates are able to adapt easily in the services they render to a country that aspires to evolve rapidly into a developed industrialised competitor in the region and also in the world scene. Graduates of the department then are equipped to:

i. Engage in the professional practice of Architecture within the region, serving in the public or private sector,

ii. Faculty of Architecture & Environmental Design | Department of Architecture | Programme Specifications | B.Arch degree

iii. Actively participate in professional organisations that promote good, ethical practice of Architecture while encouraging continuing self-development. ☐ Pursue post-graduate studies in Architecture and in other related professional areas of expertise that fall within the broad discipline of Environmental Planning.

iv. Graduates of this Architecture programme will come out with strong critical thinking and analysis skills which can be applied to many disciplines, but will be specialized in architecture and will thus be regarded as qualified for licensure to practice architecture. They will be eligible to take up entry-level professional practice in architecture, where they will be able to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas. The programme outcomes have been referenced to the Qualification Descriptors for Level 5 (Bachelor Degree) of the Rwandan National Qualifications Framework for Higher Education Institutions.

A. Knowledge and Understanding At the end of the programme students should be able to demonstrate knowledge and understanding of:

A1. The core relationships between buildings, spaces, and urban conditions to the social, cultural and ecological environment.

A2. The fundamental drawing, modelling, expression and presentation techniques used in architecture and related disciplines.

A3. The history and theory of architecture and the built environment vis-à-vis its application to the developing world, existing social structures, and it's cultural value.

A4. Building, urban, and design systems performance in terms of functionality and social support.

A5. The various types of existing and emerging of building materials, their properties, performance, and the specification of suitable materials that suit differing architectural conditions.

A6. The underlying principles of various manufacturing, fabrication, and construction processes needed for realising well-detailed architectural design and construction.

A7. The fundamental methods of construction practices, structural applications, building economics, maintenance and quality control.

A8. The vast breadth of architectural thinking, including design programming at all scales, urban or regional planning, public policy-making implications, and investigative experimentation.

A9. The fundamental codes, regulations, and theories – both legal and ethical – of architectural practice up to international standards.

A10. The means of analyzing production systems, energy usage, and climatology relevant to the pursuit of sustainable design practices.

A11. Extensive spatial, environmental, and infrastructural planning methods relevant to rural sector development, urban and regional planning, and developmental practices.

B. Cognitive/Intellectual skills/Application of Knowledge At the end of the programme students should be able to:

B1. Identify, articulate into briefs, and analyse architectural design challenges and thereafter, to develop appropriate solutions considering the social, cultural, and environmental implications.

B2. Evolve innovative, creative design and office practice approaches which address challenges at work and in the society.

B3. Critically evaluate building work that has been carried out by other professionals in both a professional and scholarly manner, and provide guidance on the quality, relevance, historical significance, environmental impact, and social sustainability of such work, within the set constraints of ethical professional practice.

B4. Circumstantially select suitable construction methods, technical systems, emerging building materials and techniques, and appropriate technologies in construction.

B5. Identify suitable site configuration, contextual responses, planning mechanisms and building materials for a relevant programmatic and performative functions.

B6. Apply analysis skills across a broad spectrum of issues, including: structural design, technical considerations, ecological sustainability, .

B7. Apply theoretical knowledge of architectural history and theory to produce appropriate design, planning, development policy, and/or consulting schemes.

B8. Apply planning and implementation of structural, formal, and tectonic spatial theories appropriate to local conditions.

B9. Effectively identify needs, manage projects, and apply applicable law or regulations in architectural practice and related disciplines.

C. Communication/ICT/Numeracy/Analytic Techniques/Practical Skills At the end of the programme students should be able to:

C1. Demonstrate an awareness of practical architectural skills, design detailing, and construction methods.

C2.   Generate design schemes with clear sketches for effectuation by architectural designers, working drawings, and building specifications that communicate sufficiently to other consultants and implementers in the building industry.

C3.   Interpret Architectural drawings and others from participating civil, mechanical, and electrical engineering, interior designers, landscape architects, and environmental analysts, as well as bills of quantities and cost planning guidance from consultants and quantity surveyors.

C4.   Implement and supervise as well as coordinate consultant inputs into the construction of all building structures, while guiding contractors, suppliers and other technical staff on the job.

C5.   Engage in positive client liaison, office management, and project procurement

C6.   Apply relevant design, drawing, and rendering or presentation and computer modelling software in architectural design and development.

C7.   Advise on procedures, time schedules, and best practices in the construction industry

C8.   Prepare design presentations, technical reports deliver design presentations and technical documents.

D.   General transferable skills At the end of the programme students should be able to:

D1.   Produce drawings and visual presentations to effectively communicate ideas, proposals, and technical issues .

D2.   Prepare project proposals; make verbal, written, and visual presentations of a professional nature, and report findings of research or investigation.

D3.   Instruct and educate technical personnel (foremen, clerk of works, and contractors and suppliers) and artisans (masons, carpenters, plumbers and other building specialists), the basics of architectural design and related disciplines, support the advancement of building technology, and contribute to the artistic, economic, social and environmental improvement of Rwanda and/or other project locations.

D4.   Use various communication tools, particularly ICT, in passing on information.

D5. Demonstrate general community leadership in development and advocacy with well structured clear thinking, presentation of ideas, and management of tasks.

D6 Have a strong capacity for self-learning, carry out rigorous investigative research and design exploration, respond adequately and appropriately to cultural contexts, and promote life-long learning in familiar and unfamiliar situations.

D7 Carry out in-depth investigations, critically examine existing conditions and employ analytical thinking to produce pragmatic but inspiring solutions.