



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

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**REVISED CURRICULUM
BACHELOR OF ARCHITECTURE
SENATE APPROVED**

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NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY

PART A: PROGRAMME DOCUMENTATION

BACHELOR OF ARCHITECTURE

(REVISED PROGRAMME)

1. Awarding Institution:

Namibia University of Science and Technology (NUST)

2. Faculty and Department:

Faculty of Natural Resources and Spatial Sciences

Department of Architecture and Spatial Planning

3. Programme / Qualification Title:

Bachelor of Architecture

4. NQF Level of Qualification:

Level 7

5. NQF Credits of Qualification:

Total credits available: **388**

Minimum credits required: **388**

	Compulsory
NQF level 4 credits:	10
NQF level 5 credits:	156
NQF level 6 credits:	122
NQF level 7 credits:	100
Minimum total credits required:	388

6. Field and Sub-field of Learning:

Field: Physical Planning and Construction

Sub-field: Architecture

7. Programme Aims / Purpose:

The Bachelor of Architecture (B. Arch.) is developed for students who intend to pursue careers in architecture and related fields. The programme is designed to provide students with comprehensive and systematic knowledge of the principles, theories and methodologies of the architectural profession. The programme also intends to provide a diverse range of skills and competencies that are both discipline specific and job related and facilitate the development of generic cognitive and intellectual skills, enabling a graduate to adapt to a continuously changing environment. The programme provides for Work Integrated Learning (WIL) during which students are expected to work in industry and build up a portfolio according to criteria set by the Department.

The principal purposes of this qualification are to:

- Provide students with professional / technical competencies related to professional practice in architecture and the construction industry;
- Equip students with a foundation for further intellectual development and opportunities for gainful employment and rewarding contributions to society;
- Provide the built environment professions with qualified persons who possess contextually specific problem-solving skills;
- Produce students who are prepared for and demonstrate understanding of the principles of
 - Life-long learning,
 - Critical citizenship,
 - A wide range of issues which are crucial to the welfare of society, for example upliftment, empowerment and transformation;
- Contribute towards a learner's personal career path development by affording opportunities to gain additional qualifications in architecture and / or related fields;
- Equip students with the generic competencies of critical thinking, communication, teamwork and cross-cultural cooperation.

Successful completion of the Bachelor of Architecture will enable registration as Candidate Architectural Technologists with the Namibia Council for Architects and Quantity Surveyors (NCAQS) in terms of Act 13 of 1979, and Act 11 of 1992. The revised programme has been endorsed by members of the Programme Advisory Committee and the NCAQS (please find evidence of consultation and endorsement attached) who were also consulted for purposes of benchmarking.

8. Programme Rationale:

The architecture programme was first established in 2010 in order to provide homegrown built environment professionals and the resultant qualifications were then registered on the NQF. The programme was aligned with national economic programmes such as National Development Plan 4 and Vision 2030, as well as with the NUST Mission and Vision.

The successful implementation of the Bachelor of Architecture and Bachelor of Architecture Honours was confirmed by the NCAQS in April 2016, which granted “unconditional validation” for both programmes. Nevertheless, the validation panel made specific recommendations for improvements, confirming some of the Department's objectives for the review of the curricula, which were due for regular review in 2016. Furthermore, in accordance with the requirements of the NUST and NQF frameworks, programmes and qualifications need to be reviewed at certain intervals to ensure on-going relevance to the needs and priorities of Namibia. It is against this background that the Bachelor of Architecture is revised to address the shortcomings identified during consultation with the relevant stakeholders and thereby ensuring continued relevance of the programme. The revised programme will continue to support the NUST's endeavours to address national development imperatives.

In addition, the transformation from the Polytechnic to the Namibia University of Science and Technology requires an increased emphasis on the quality of academic output. Lastly, the external examination system needs to be re-structured to include both academics and professionals and to ensure coherent, objective assessment of the programme outcomes.

The revised B. Arch. programme is therefore fully aligned with the requirements of the NUST Curriculum Framework and the National Qualifications Framework (NQF), as well as with NCAQS standards.

9. Exit Programme Outcomes (Qualification Outcomes):

Upon completing the Bachelor of Architecture, graduates will be able to:

- Evaluate the fundamentals of the design process and apply this knowledge to a given building brief and site comprehensively through design.
- Analyse social and environmental issues and develop contextually responsive architectural interventions.
- Evaluate theory as well as spatial, conceptual and aesthetic aspects appropriate to architecture.
- Demonstrate knowledge of construction methods and uses for materials related to simple low-rise building types and develop sustainable structures with appropriate component and material specification.
- Apply knowledge of structural concepts pertaining to buildings and the various technological aspects pertaining to building services.
- Apply basic knowledge of National Building Regulations (NBR) as well as the requirements of National or Local Health Regulations and local authority approval requirements and procedures.
- Demonstrate knowledge of the terminology and basic concepts and principles of architectural practices in Namibia and Southern Africa.
- Exhibit knowledge of computer technology presently in use in architectural practices in Namibia and Southern Africa.
- Achieve the generic graduate outcomes of problem-solving, critical thinking, responsible citizenship and good communication.

10. Criteria for Admission:

The admission of students will be by means of a selection process, involving three stages as follows:

10.1. First Stage:

Candidates are to be assessed on academic merit only. Candidates apply for this stage with their latest Grade 12 / NSSC Ordinary Level (NSSCO) and / or NSSC Higher Level (NSSCH) results. Candidates are required to meet the following minimum academic criteria to be considered:

- At least 12 points on the NUST evaluation scale for English and Mathematics using a combination of NSSCH and / or NSSCO, provided that no symbol lower than a C on NSSCO will be accepted.
- A minimum of 18 points on the NUST evaluation scale for any three other subjects out of the following (or their equivalent): Technical Drawing, Physical Science, Physics, Chemistry, Biology, Geography, Fine Art, Arts and Crafts, Literature, and Economics, using a combination of NSSCH and NSSCO, provided that no symbol lower than a C on NSSCO will be accepted.

10.2. Second Stage – Selection Test

Candidates who meet the minimum academic requirements for admission will be invited for a selection test set by the Department. The selection test will assess candidates in terms of their general knowledge, knowledge of technical and scientific principles, free hand and technical drawing skills as well as English language skills. Based on the outcome of the selection test, the Department will compile a selection shortlist.

Prior learning in technical / geometrical drawing provides an extremely advantageous foundation for students entering all programmes leading to an architectural qualification.

10.3. Final Stage – Selection Interview

Shortlisted candidates will be invited for selection interviews with the Selection Committee, after which a final selection list and ranked waiting list will be compiled. The results of the Selection Process are final and no discussion or correspondence will be entered into. If the final Grade 12 results of candidates, who were selected provisionally, do not meet the minimum requirements, then final admission to the programme will be withheld.

11. Articulation Arrangements:

Transfer of credits will be dealt with according to the NUST regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Students who complete the Bachelor of Architecture successfully will typically be able to undertake further studies in architecture or related disciplines at NQF Level 8.

12. Mode of Delivery:

This programme is offered on the full-time mode in accordance with NUST's rules and regulations.

13. Requirements for Qualification Award:

The Bachelor of Architecture will be awarded to candidates credited with a minimum of 388 NQF credits, and who have met the detailed requirements set out below. In addition, students should meet the administrative and financial requirements in accordance with Yearbook Part 1 of the NUST Yearbook, General Information and Regulations.

This programme has one major subject/cognate area of learning, i.e. Architecture, which is developed in increasing complexity across relevant NQF levels in accordance with NQF principles as follows:

Courses	NQF Level	NQF Credits
Architectural Design 1A	5	20
Applied Building Science	5	16
Architecture in Context	5	10
Graphics and Communication	5	10
Architectural Design 1B	5	20
Construction Technology 1	5	10
Landscape and Context	5	10
Architectural Drafting	5	16
Architectural Design 2A	6	20
Construction Technology 2	6	16
Architecture and Discourse	6	10
Computer Aided Drafting and Visualisation	6	10
Architectural Design 2B	6	20
Building Structures	6	16
Housing and Everyday Life	6	10
Work Integrated Learning: Architecture	7	60
Architectural Design 3	7	20
Environment and Services	6	16
Principles of Urban Design	7	10
Computer Generated Imagery	7	10
		Total Credits: 330

The proposed curriculum outline is as follows:

Semester 1		Semester 2	
Course Title	Compulsory or Elective (C or E)	Course Title	Compulsory or Elective (C or E)
Architectural Design 1A	C	Architectural Design 1B	C
Applied Building Science	C	Construction Technology 1	C
Architecture in Context	C	Landscape and Context	C
Graphics and Communication	C	Architectural Drafting	C
Computer User Skills	C	Information Competence	C
		Vertical Studio 1	C
Semester 3		Semester 4	
Course Title	Compulsory or Elective (C or E)	Course Title	Compulsory or Elective (C or E)
Architectural Design 2A	C	Architectural Design 2B	C
Construction Technology 2	C	Building Structures	C
Architecture and Discourse	C	Housing and Everyday Life	C
Computer Aided Drafting and Visualisation	C	Introduction to Survey and Mapping	C
English for Academic Purposes	C	Vertical Studio 2	C
Semester 5		Semester 6	
Course Title	Compulsory or Elective (C or E)	Course Title	Compulsory or Elective (C or E)
Work Integrated Learning: Architecture	C	Architectural Design 3	C
		Environment and Services	C
		Principles of Urban Design	C
		Computer Generated Imagery	C
		Vertical Studio 3	C

The detailed Curriculum requirements for programme are as follows:
(Course codes for new courses will be created by the Faculty Officer following Senate approval of the programme)

YEAR 1: SEMESTER 1 COURSES

Course Code	Course Title	Comprehensive Learning Outcome	Prerequisites	Compulsory or Elective	NQF Level	Notional Hours	NQF Credits
ADR511S	Architectural Design 1A	Design elementary structures and communicate such designs verbally and graphically.	None	Compulsory	5	200	20
ABS511S	Applied Building Science	Evaluate and apply building material properties and basic physical and mathematic concepts related to building design.	None	Compulsory	5	160	16
ACC511S	Architecture in Context	Evaluate architecture in basic contextual, conceptual, spatial and aesthetic terms.	None	Compulsory	5	100	10
GPC511S	Graphics and Communication	Utilise drawing techniques that both convey the concept and design while providing desired aesthetic qualities.	None	Compulsory	5	100	10
CUS411S	Computer User Skills	Demonstrate and apply various technical and practical skills to effectively use basic functionalities of a Personal Computer (PC), as well as widely used application software, as tools to solve problems and improve personal and organisational productivity.	None	Compulsory	4	100	10
Total Credits : 66							

YEAR 1: SEMESTER 2 COURSES

Course Code	Course Title	Comprehensive Learning Outcome	Prerequisites	Compulsory or Elective	NQF Level	Notional Hours	NQF Credits
ARD521S	Architectural Design 1B	Design elementary buildings that are contextually and environmentally responsive.	None	Compulsory	5	200	20
CST521S	Construction Technology 1	Outline basic building solutions common in Namibia in relation to environmental context, building design, and construction detailing.	None	Compulsory	5	100	10
LSC521S	Landscape and Context	Demonstrate broad general knowledge of, and apply theoretical concepts and practical methodologies of contextual analysis to enable the generation of responsive designs.	None	Compulsory	5	100	10
ACD521S	Architectural Drafting	Apply the knowledge of two-dimensional manual drafting in conveying construction information appropriately.	None	Compulsory	5	160	16
ICT 521S	Information Competence	Search effectively for information using search engines on the Internet and Web 2.0 technologies to solve given problems and critically evaluate information obtained.	None	Compulsory	5	100	10
VTS521S	Vertical Studio 1	Examine relevant contemporary issues related to architecture and technology.	None	Compulsory	5	40	4
Total Credits : 70							

YEAR 2: SEMESTER 3 COURSES

Course Code	Course Title	Comprehensive Learning Outcome	Prerequisites	Compulsory or Elective	NQF Level	Notional Hours	NQF Credits
ARD611S	Architectural Design 2A	Plan and design buildings that are developed in their material and structural expression.	Architectural Design 1A; Architectural Design 1B	Compulsory	6	200	20
CST611S	Construction Technology 2	Demonstrate knowledge of and apply construction methods of framed structures in the design of buildings.	Construction Technology 1	Compulsory	6	160	16
AAD611S	Architecture and Discourse	Evaluate architectural theory critically as embedded in a wider system of natural, social, cultural, economic, political and historical processes.	None	Compulsory	6	100	10
CAD611S	Computer Aided Drafting and Visualisation	Make use of CAD software and vector and pixel-based graphic software to visually communicate concept, design and construction documentation.	None	Compulsory	6	100	10
EAP511S	English for Academic Purposes	Communicate accurately, appropriately and effectively in academic speech and writing within academic contexts.	English in Practice	Compulsory	5	140	14
Total Credits : 70							

YEAR 2: SEMESTER 4 COURSES

Course Code	Course Title	Comprehensive Learning Outcome	Prerequisites	Compulsory or Elective	NQF Level	Notional Hours	NQF Credits
ARD621S	Architectural Design 2B	Design socially responsive residential typologies within a residential context.	None	Compulsory	6	200	20
BDS621S	Building Structures	Analyse existing and new structures and apply the knowledge to realise effective building design.	None	Compulsory	6	160	16
HEL621S	Housing and Everyday Life	Evaluate collective housing in terms of architectural, urban, social and cultural considerations.	None	Compulsory	6	100	10
ISM520S	Introduction to Survey and Mapping	Analyse the basic principles of land surveying and apply various technical skills to plot surveying outputs.	* Introduction to Geospatial Data	Compulsory	5	120	12
VSD521S	Vertical Studio 2	Examine relevant contemporary issues related to art and cultural production.	None	Compulsory	5	40	4
* In consultation with the Department of Geo-Spatial Science and Technology (DGST), DASP seeks Senate approval to exempt Architecture students from the prerequisite for ISM520S. DGST is in the process of reviewing the pre-requisite for this course and has given its approval.							Total Credits : 62

YEAR 3: SEMESTER 5 COURSES

Course Code	Course Title	Comprehensive Learning Outcome	Prerequisites	Compulsory or Elective	NQF Level	Notional Hours	NQF Credits
WIA711S	Work Integrated Learning: Architecture	Apply acquired competencies in a real professional architectural work environment.	Architectural Design 2A; Architectural Design 2B; Construction Technology 2	Compulsory	7	600	60
							Total Credits : 60

YEAR 3: SEMESTER 6 COURSES

Course Code	Course Title	Comprehensive Learning Outcome	Prerequisites	Compulsory or Elective	NQF Level	Notional Hours	NQF Credits
ARD721S	Architectural Design 3	Design a multi-level public building in an urban context to technical documentation level.	Work Integrated Learning: Architecture	Compulsory	7	200	20
EAS621S	Environment and Services	Evaluate environmental and sustainable technologies and apply theoretical knowledge of building services to building design.	None	Compulsory	6	160	16
PUD721S	Principles of Urban Design	Demonstrate understanding of the historical development of urban environments as a basis for developing urban design frameworks that are contextual and that respond to stakeholder and community needs.	None	Compulsory	7	100	10
CGI721S	Computer Generated Imagery	Utilise 3D modelling software, rendering software and post rendering pixel-based graphic software to produce imagery that portrays concept and design.	None	Compulsory	7	100	10
VTS621S	Vertical Studio 3	Examine relevant contemporary socio-spatial issues.	None	Compulsory	6	40	4
Total Credits : 60							

14. Special Arrangements:

14.1. Teaching and Learning Strategies:

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional / technical competencies. Thus, the qualification focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and / or professional / technical practical skills. This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by students. This facilitation will make use of a variety of appropriate methods, including design studio, lectures, practical classes, workshops and seminars, site visits and Work Integrated Learning. In addition, courses will be facilitated through the MyNUST e-learning platform, where relevant course materials will be made available to students. The Department's specialized facilities include its model-building workshop, the computer labs and plotting facilities and the Departmental Resource Centre through which students can access online materials and support. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

14.2. Assessment Strategies:

Learning and assessment are integrated throughout the programme. Diversified continuous assessment is applied to ensure that students receive feedback on their progress towards the achievement of specific learning outcomes. This will normally apply to practical assignments to be carried out individually or in groups, tests, class seminars, as well as technical and project site reports.

The brief for the assignment must clearly explain the aim of the assignment as well as the expected learning competencies relative to the course. In accordance with NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events.

Assignments, designed to meet the requirements of integrated assessment, accomplish / deliver:

- Integration of qualification outcomes in a way that demonstrates that the purpose of the qualification as a whole has been achieved, either totally or within the components of the study programme;
- Demonstration of student competence through evaluation;
- Criterion-referenced assessment, which has been clearly explained to and is understood by students;
- Formative continuous assessment, which enables lecturers to continuously evaluate students' performance and give them adequate feedback.

In the assessment of whether the desired outcomes have been achieved (or not), recognition is given to criteria and evaluation methods that adequately and appropriately achieve such assessment.

14.3. Quality Assurance of Assessment:

Each course will have one or more examiner(s) and one internal and external moderator respectively. The required minimum qualification of moderators should be a Bachelor Honours degree or well-established professional expertise in a related field of studies. Lecturing staff will set and mark tests and / or assignments which will, together with relevant study material of that particular course and other material containing course learning outcomes be forwarded to moderators for moderation purpose, therefore, ensuring quality of the assessment and the qualification as a whole. All courses at exit level (NQF Level 7) will be externally moderated as per NUST regulations.

In addition, all architectural design courses will be subject to external examination at the end of each

year, with a fixed percentage weighting in relation to the course examiners marks as stipulated in the Departmental External Examination Policy. External examiners will include both academics and professionals in the field of architecture or relevant related fields with the same minimum qualification requirements as moderators above.

Assessment of programme outcomes by external organisations, in particular the Namibia Council for Architects and Quantity Surveyors, established in terms of the Architects' Acts, 1979 and 1992 (Act 13 of 1979 and Act 11 of 1992), will normally be done through scheduled, mutually arranged periodic validation visitations with intervals of not more than 5 years.

Periodic public exhibition of students works attract stakeholders comments on quality achieved.

15. Transition Arrangements:

Once approved, the revised programme (new curriculum) will become effective in January 2017. Students, registered in their first and second years in 2016, will be transitioned to the new curriculum. They will receive credits for old curriculum courses passed as per table 15.1 below, and will need to do equivalent courses for their outstanding courses as per the table 15.2 below.

In addition to the registering for all courses of the new curriculum as from 2017, the following cohorts of students need to register for the following courses:

- Students registered in their first year in 2016 are required to register for Landscape and Context course in 2017.
- Students registered in their second year in 2016 will have to register for Introduction to Survey and Mapping course in 2017.

The old curriculum will be phased out by the end of 2017, so that students who have failed a course of the old curriculum in 2016 can repeat such course in 2017. Students who are registered in their third year in 2016 who still fail to complete their old curriculum courses by the end of 2017 will be transitioned to the new curriculum. They will receive credits for old curriculum courses passed as per table 15.1 below, and will need to do equivalent courses for their outstanding courses as per the table 15.2 below.

Table 15.1 Old curriculum Courses to be credited.

Course Code	OLD Curriculum	NQF Level	Credits	NEW Curriculum Courses	NQF Level	Credits
HTA 501Y	HISTORY & THEORY OF ARCHITECTURE	5	12	ARCHITECTURE IN CONTEXT	5	10
CMT 501Y	CONSTRUCTION MATERIALS AND TECHNOLOGY I	5	25	CONSTRUCTION TECHNOLOGY 1	5	10
ABS 501Y	APPLIED BUILDING SCIENCE	5	10	APPLIED BUILDING SCIENCE	5	16
BST 501Y	BUILDING STRUCTURES I	5	6			
FCD 501Y	FUNDAMENTALS OF CONTRACT DOCUMENTATION	5	16	ARCHITECTURAL DRAFTING	5	16
PTE 501Y	PRESENTATION TECHNIQUES	5	10	GRAPHICS AND COMMUNICATION	5	10
LSS 602Y	LANDSCAPE STUDIES	6	10	LANDSCAPE AND CONTEXT	5	10
HAU 602Y	HISTORY & THEORY OF ARCHITECTURE AND URBANISM	6	15	ARCHITECTURE AND DISCOURSE	6	10
CMT	CONSTRUCTION MATERIALS	6	19	CONSTRUCTION TECHNOLOGY	6	16

602 Y	AND TECHNOLOGY II			2		
CAD 602Y	COMPUTER AIDED DESIGN II	6	5	COMPUTER AIDED DRAFTING AND VISUALISATION	6	10
DPT 602Y	DIGITAL PRESENTATION TECHNIQUES	6	6			
WIL 713S	WORK INTEGRATED LEARNING	7	60	WORK INTEGRATED LEARNING: ARCHITECTURE	7	60
ARD 723S	ARCHITECTURAL DESIGN III	7	25	ARCHITECTURAL DESIGN 3	7	20

Please Note:

If students have failed any of the two old curriculum courses that give credit to one new curriculum course they are required to register for the new curriculum course as per table 15.2 below.

Table 15.2 Corresponding Courses (if Failed). This is not a credit table.

Course Code	OLD Curriculum	NQF Level	Credits	Equivalent NEW Curriculum Courses	NQF Level	Credits
ARD 501Y	ARCHITECTURAL DESIGN I	5	25	ARCHITECTURAL DESIGN 1A	5	20
				ARCHITECTURAL DESIGN 1B	5	20
HTA 501Y	HISTORY & THEORY OF ARCHITECTURE	5	12	ARCHITECTURE IN CONTEXT	5	10
EOA 501Y	ELEMENTS OF ARCHITECTURE	5	8	None		
CMT 501Y	CONSTRUCTION MATERIALS AND TECHNOLOGY I	5	25	CONSTRUCTION TECHNOLOGY 1	5	10
ABS 501Y	APPLIED BUILDING SCIENCE	5	10	APPLIED BUILDING SCIENCE	5	16
BST 501Y	BUILDING STRUCTURES I	5	6			
FCD 501Y	FUNDAMENTALS OF CONTRACT DOCUMENTATION	5	16	ARCHITECTURAL DRAFTING	5	16
CAD 501Y	COMPUTER AIDED DESIGN I	5	5	None		
PTE 501Y	PRESENTATION TECHNIQUES	5	10	GRAPHICS AND COMMUNICATION	5	10
ARD 602Y	ARCHITECTURAL DESIGN II	6	30	ARCHITECTURAL DESIGN 2A	6	20
				ARCHITECTURAL DESIGN 2B	6	20
LSS 602Y	LANDSCAPE STUDIES	6	10	LANDSCAPE AND CONTEXT	5	10
HAU 602Y	HISTORY & THEORY OF ARCHITECTURE AND URBANISM	6	15	ARCHITECTURE AND DISCOURSE	6	10
CMT 602 Y	CONSTRUCTION MATERIALS AND TECHNOLOGY II	6	19	CONSTRUCTION TECHNOLOGY 2	6	16
BSE 602Y	BUILDING SERVICES	6	10	ENVIRONMENT AND SERVICES	6	16
BST 602Y	BUILDING STRUCTURES II	6	10	BUILDING STRUCTURES	6	16
CAP 602Y	CONTRACT DOCUMENTATION AND ARCHITECTURAL PRACTICE	6	20	None		
CAD 602Y	COMPUTER AIDED DESIGN II	6	5	COMPUTER AIDED DRAFTING AND VISUALISATION	6	10
DPT 602Y	DIGITAL PRESENTATION TECHNIQUES	6	6			

WIL 713S	WORK INTEGRATED LEARNING	7	60	WORK INTEGRATED LEARNING: ARCHITECTURE	7	60
ARD 723S	ARCHITECTURAL DESIGN III	7	25	ARCHITECTURAL DESIGN 3	7	20
HEL 723S	HOUSING AND EVERYDAY LIFE	7	8	HOUSING AND EVERYDAY LIFE	6	10
CMT 723S	CONSTRUCTION MATERIALS AND TECHNOLOGY III	7	19	None		
PQS 723S	PRINCIPLES OF QUANTITY SURVEYING	7	5	None		
SFA 723S	SURVEYING FOR ARCHITECTURE	7	5	None		

Please Note:

Table 15.1 above, only highlights new/revised core courses in Architecture that should be done if courses on the old curriculum are failed. Where students have failed one old curriculum course that is equivalent to two new curriculum courses they are required to register for both new curriculum course as per table 15.2 above.

Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well. Old courses that do not have corresponding courses in the revised curriculum will continue to be offered in 2017 until the old programme is completely phased out.

16. Career Opportunities:

Career possibilities for graduates completing and leaving the programme at the exit level are bright and diverse as follows:

- Graduates can take up careers in a wide range of areas in the built environment industry. Specifically they have opportunities in professional architecture firms as candidate Architectural Technologist. They may also seek employment with local and municipal authorities and Government.
- Graduates may also decide to enter into other multi-disciplinary fields such as Landscape Architecture, Interior Design, Project Management and Urban Design.

17. Programme Director / Coordinator

Prof. S. Umenne

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18. Intended Date of First Intake

January 2017

19. Date of Approval of this Version

TBC

20. Intended Date of Review

2021

PART B: COURSE SPECIFICATION

SEMESTER 1 COURSES

Course Title	ARCHITECTURAL DESIGN 1A
Course Code	ARD511S
NQF Level	5
Notional Hours	200 Contact: 15 hours; Directed Self-Learning (studio work): 120 hours and Self-Directed Learning: 50 hours; Assessment: 15 hours
NQF Credits	20
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 1
Course Aims	The aim of this course is to instil in students an appropriate attitude, awareness and approach towards design issues that should be cultivated. The course further aims at introducing students to the design process; enabling students to communicate design ideas verbally and graphically, and to start developing the required skills. Students will be able to cultivate an awareness of the interrelationship of structure and functional requirements as generators for spatial design.
Specific Learning Outcomes	On completion of the course students will, through assessment activities, show evidence of their ability to: <ul style="list-style-type: none"> • Demonstrate creative thinking abilities; • Design elemental spaces and structures, and demonstrate understanding of how spatial and structural requirements influence design outcomes; • Demonstrate basic knowledge of the design process in the execution of design projects; • Demonstrate basic knowledge of verbal and graphical communication.
Comprehensive Learning Outcome	Design elementary structures and communicate such designs verbally and graphically.
Course Content	The overarching theme of the course is “space and structure”, without reference to a given spatial context. A number of elemental design projects will cover the following aspects: <ul style="list-style-type: none"> • Basic human functional requirements and elementary circulation; • Basic structural principles and stability; • Relationship between mass, volume, structure, and enclosure; • Basic architectural representation and drawing conventions.

Methods of Facilitating Learning	<p>Course delivery is studio-based with an explicit application of theoretical knowledge acquired in the complementary theory courses. Input lectures will ground studio projects in specific thematic areas, while students develop ideas in drawings and models under the supervision of a minimum of studio tutors. Occasional group exercises, site visits and field trips will expose students to specific practical aspects and allow application of acquired knowledge. The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>
Assessment Strategies	<p>Diversified continuous assessment will be achieved through design studio project assessments. 3-4 design modules will be lined up for the semester in an ascending order of complexity. Each module will consist of a rational number of interim critiques; altogether weighed 60%, and a final critique weighed 40%.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • Weighting of the design modules is at the discretion of the lecturer.
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST general rules and guidelines on moderation.</p> <p>In addition the following measures will be taken:</p> <ul style="list-style-type: none"> • End of year external portfolio examination; • The involvement of architects in practice for input seminars, participation in project critiques, etc., is strongly recommended. • Periodic public exhibition of students works attract stakeholders comments on quality achieved.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB, My NUST e-learning platform</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> • Ching, F. (2007). Architecture-form, space, & order. Hoboken, N.J: John Wiley & Sons. <p>Recommended reading: Students are advised to read and consult books, architectural journals, technical magazines, NBR, brochures, and manufacturers' literature.</p>

Course Title	APPLIED BUILDING SCIENCE
Course Code	ABS511S
NQF Level	5
Notional Hours	160 Contact: 60 hours; Directed self-learning and Self-Directed Learning: 88 hours; Assessment: 12 hours
NQF Credits	16
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 1
Course Aims	The aim of this course is to provide students with the necessary theoretical background to the sciences relating to buildings.
Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Demonstrate understanding of scientific concepts related to building; • Analyse the role of the architect and Quantity Surveyor in interpreting scientific knowledge for effective building design and cost management • Demonstrate knowledge of basic scientific principles in design and cost management • Apply building science principles and theoretical concepts to building design and cost control • Evaluate concepts and apply them in new problematic situations.
Comprehensive Learning Outcome	Evaluate and apply building material properties and basic physical and mathematic concepts related to building design.

Course Content	<ol style="list-style-type: none"> 1. Basic Mathematics 2. Basic Sciences <ul style="list-style-type: none"> • Heat, building design and construction • Natural and Artificial Ventilation • Natural and Artificial Lighting • Electricity • Hydraulics-fluids and gases; • Environmental attack and Corrosion 3. Construction materials <ul style="list-style-type: none"> • Types of construction materials • Properties of construction materials • Applications of various materials in building construction and services 4. Sustainable Design Principles; <ul style="list-style-type: none"> • Passive solar design • Green building • Energy efficient design 				
Methods of Facilitating Learning	<p>The course will be facilitated through the following learning activities:</p> <ul style="list-style-type: none"> • Lectures to be the main method of teaching. External resource persons to be invited to lecture on specific topics; • Group work: students will be divided into groups to discuss topics, interact with each other, share ideas and draw conclusions and recommendations together; • Assignments: students will be writing assignments regularly to account for part of the final mark; • Industrial visits: students will visit relevant industries to demonstrate practical applications; • Case Studies: students will research specific buildings through both primary and secondary data collection methods. 				
Assessment Strategies	<p>Diversified continuous assessment mode:</p> <table> <tr> <td>Assignments</td><td>Recommended weight: 60%</td></tr> <tr> <td>Tests</td><td>40%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • A portfolio of works will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. • Final assessment weights are at discretion of the lecturer. 	Assignments	Recommended weight: 60%	Tests	40%
Assignments	Recommended weight: 60%				
Tests	40%				
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.</p>				

Student Support and Learning Resources	<p>NUST level: The library, student services, architecture portal</p> <p>Department level: Internet facilities available Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course Students will be provided with a study guide that will also clearly define what the final performance requirements will be Internet facilities available.</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> • McMullen, R., & Seeley, I. H. (2007). <i>Environmental science in building</i>. Basingstoke: Palgrave Macmillan. • Morrison K. & Dunne L (2013), <i>Cambridge IGCSE Mathematics Extended Practice Book</i>, Cambridge: Cambridge University Press <p>Recommended reading:</p> <ul style="list-style-type: none"> • Burberry, P. (2005). <i>Environment and services</i>. S.I.: Addison Wesley.
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Course Title	ARCHITECTURE IN CONTEXT
Course Code	ACC511S
NQF Level	5
Notional Hours	100 Contact: 45 hours; Directed self-learning and Self-Directed Learning: 43 hours; Assessment: 12 hours
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 1
Course Aims	The aim of this course is to introduce students to various historical periods and styles of architecture through exemplary buildings and landscapes with special focus on context; critical thinking and analysis; stimulating students' interest in architecture and the possibilities of design. Additionally, the course encourages the perception of architecture and design as a response to the social, natural and built environment context, while allowing students to make informed and contextually sensitive design decisions.

Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed Textbook:</p> <ul style="list-style-type: none"> Unwin, S. (2009). <i>Analysing architecture</i>. London: Routledge <p>Recommended reading:</p> <ul style="list-style-type: none"> Kostof, S. (1995). <i>A History of Architecture: Settings and Rituals</i> 2nd Edition Flemming, W. (1995). <i>Arts and ideas</i>. Chicago: Holt, Rinehart and Winston Elleh, N. (1997). <i>African architecture: Evolution and transformation</i>. New York: Hall, P. (1999). <i>Cities in civilization: Culture, innovation, and urban order</i>. London: Phoenix Giant.

Course Title	GRAPHICS AND COMMUNICATION
Course Code	GPC511S
NQF Level	5
Notional Hours	100 Contact: 45 hours; Directed self-learning and Self-Directed Learning: 43 hours; Assessment: 12 hours
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 1
Course Aims	This course aims to provide students with the skills and knowledge to analyse objects through drawing. Students will be able to explore and develop concepts through drawing. The course additionally provides students with the skills and knowledge to graphically communicate and present design and concepts through drawing.

Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Apply methods and techniques of conveying ideas and documenting observations through sketching; • Apply the basics of Architectural drawing techniques and presentations; • Communicate concept and design effectively, both verbally and graphically. 						
Comprehensive Learning Outcome	Utilise drawing techniques that both convey the concept and design while providing desired aesthetic qualities.						
Course Content	<ul style="list-style-type: none"> • The nature and application of presentation drawings; • Freehand sketching and drawing techniques; • Graphic presentation techniques with ink, pens and pencil; • Principles of composition: line, tone and texture; • Principles of composition: two/three dimensional projections illustrating light and shadow; • Perspective drawing: one and two point projection. Isometric and axonometric projections; • Basic 2D projections in plan, section and elevation; • Model building techniques: concept models and presentation models. 						
Methods of Facilitating Learning	<p>The method of course delivery is studio-based with a combination of theory seminars and lectures, and hands-on practical exercises, which will be interpreted and applied with weekly assignments.</p> <ul style="list-style-type: none"> • A continuous sketchbook will be carried throughout the semester in which students will perform their weekly exercises along with other assignments external to this course. • Course integration: students will be required to integrate knowledge into their corresponding Architectural Design 1A projects. • The institutional My NUST e-learning platform will be used as the main communication platform for the course. 						
Assessment Strategies	<p>Diversified continuous assessment mode:</p> <table> <tr> <td>Assignments</td><td>Recommended weight: 70%</td></tr> <tr> <td>Assessment of Architectural Design 1A</td><td>20%</td></tr> <tr> <td>Participation</td><td>10%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • A portfolio of works and sketchbook will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. • Final assessment weights are at the discretion of the lecturer. 	Assignments	Recommended weight: 70%	Assessment of Architectural Design 1A	20%	Participation	10%
Assignments	Recommended weight: 70%						
Assessment of Architectural Design 1A	20%						
Participation	10%						
Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.						

Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed Text Book:</p> <ul style="list-style-type: none"> • Zell, M. (2008). <i>Architectural drawing course</i>. Hauppauge, NY: Barron's. • Mills, C. B. (2011). <i>Designing with models: A studio guide to architectural process models</i>. Hoboken, NJ: Wiley. <p>Recommended Reading:</p> <ul style="list-style-type: none"> • Ching, F. D. K., & Juroszek, S. P. (2011). <i>Design drawing</i>. Hoboken, N.J: John Wiley & Sons.
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SEMESTER 2 COURSES

Course Title	ARCHITECTURAL DESIGN 1B
Course Code	ARD521S
NQF Level	5
Notional Hours	200 Contact: 15 hours; Directed Self-Learning (studio work): 120 hours and Self-Directed Learning: 50 hours; Assessment: 15 hours
NQF Credits	20
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 2
Course Aims	<p>The main aim of this course is to develop students' awareness of the interrelationship of landscape, climate and cultural context as generators for spatial design and to develop students' skills to design appropriate and contextually responsive structures.</p> <p>In addition, the course aims to develop students' knowledge of the design process and to develop student's skills in communicating design ideas verbally and graphically appropriate to their technical resolution.</p>

Specific Learning Outcomes	<p>On completion of the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Demonstrate ability to analyse environmental context in general terms and design responsive elemental buildings and landscapes; • Discuss how site analysis informs functional arrangements; • Integrate building materials and basic construction methods through design; • Communicate design ideas in a comprehensible manner both verbally and graphically, illustrating the reasoning that generated design decisions in relation to context; • Represent elementary architectural projects in terms of basic technical drawing conventions; • Demonstrate broad general knowledge of the design process in the execution of design projects.
Comprehensive Learning Outcome	Design elementary buildings that are contextually and environmentally responsive.
Course Content	<p>The overarching theme of the course is “context and environment”. A number of design projects will cover the following aspects:</p> <ul style="list-style-type: none"> • Basic individual shelters grouped in a collective settlement, with simple circulation and zoning; • Basic assessment of landscape and context in a specified rural site; • Basic understanding of construction methods and passive climatic design; • Space, structure, and enclosure in relation to landscape and climate.
Methods of Facilitating Learning	<p>Course delivery is studio-based with an explicit application of theoretical knowledge acquired in the complementary theory courses. Input lectures will ground studio projects in specific thematic areas, while students develop ideas in drawings and models under the supervision of a minimum of two studio tutors. Occasional group exercises, site visits and field trips will expose students to specific practical aspects and allow application of acquired knowledge. The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>
Assessment Strategies	<p>Diversified continuous assessment will be achieved through design studio project assessments. 2 design modules will be lined up for the semester in an ascending order of complexity. Each module will consist of a rational number of interim critiques; altogether weighed 60%, and a final critique weighed 40%.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • Weighting of the design modules is at the discretion of the lecturer.

Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST general rules and guidelines on moderation.</p> <p>In addition the following measures will be taken:</p> <ul style="list-style-type: none"> • End of year external portfolio examination; • The involvement of architects in practice for input seminars, participation in project critiques, etc., is strongly recommended. • Periodic public exhibition of students works attract stakeholders comments on quality achieved.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> • Leupen, B., <i>et al.</i> (1997) <i>Design and Analysis</i>. Rotterdam: 010 Publishers <p>Recommended reading:</p> <ul style="list-style-type: none"> • Motloch, J.L. (2001) <i>Introduction to Landscape Design</i>, Second Edition. USA: John Wiley & Sons. Inc. • Students are advised to read and consult books, architectural journals, technical magazines, NBR, brochures, and manufacturers' literature.

Course Title	CONSTRUCTION TECHNOLOGY 1
Course Code	CST521S
NQF Level	5
Notional Hours	100 Contact: 30 hours; Directed Self-learning: 30 Hours; Self-directed Learning: 28 hours; Assessment: 12 hours.
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 2

Course Aims	This course aims to introduce students to the fundamentals of construction technology, relating to simple structures.
Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Demonstrate understanding of the methods used in constructing simple brickwork structures; • Discuss the role of the architect and quantity surveyor in the construction process; • Demonstrate an understanding of construction processes, the role players involved and the methods employed; • Analyse the factors that influence a given construction problem; • Devise solutions to solve construction related problems.
Comprehensive Learning Outcome	Outline basic building solutions common in Namibia in relation to environmental context, building design, and construction detailing.
Course Content	<p>Site and setting out:</p> <ul style="list-style-type: none"> • Principal aspects of site investigation • Effect of topography on the site • Legislative conditions • Effect of soil conditions on construction • Basics of site establishment • Setting out <p>Substructure:</p> <ul style="list-style-type: none"> • Foundations (types and method of construction) • Concrete: functional requirements, types of concrete, properties of concrete, materials for concrete, methods of concreting in construction • Rock foundations • Floors <p>Superstructure:</p> <ul style="list-style-type: none"> • Walls • Basic functions of walls • Various types of monolithic wall construction materials • Clay brickwork • Concrete block work • Principles of solid walls • Principles of internal walls • Principles of cavity walls • Principles of block work walls • Piers and lateral restraint <p>Earth as a building material:</p> <ul style="list-style-type: none"> • Nature of earth as a building material • Soil blocks • Rammed earth walls • Alternative blocks <p>Retaining walls & basements</p> <ul style="list-style-type: none"> • Principles of retaining walls & basements • Application of various methods of making retaining walls • Water management & tanking • Gabions • Boundary walls

	<p>Fittings:</p> <ul style="list-style-type: none"> • Openings • Residential door and window types and their construction • Basic requirements of doors & windows • Windows: standard types and sections • Doors: standard types and sections <p>Staircases:</p> <ul style="list-style-type: none"> • Basic types of staircases • Requirements of staircases (functional & legislative) • The construction of staircases • Handrails and balustrades <p>Fireplaces & chimneys:</p> <ul style="list-style-type: none"> • Basic elements of fireplaces • Requirements of fireplaces (functional & legislative) • Types of fireplaces <p>Roofs:</p> <ul style="list-style-type: none"> • Basic functions of roofs • Basic roof types and elements of a roof • Rainwater management <p>Finishes:</p> <ul style="list-style-type: none"> • Basic requirements of finishes • Wall finishes • Ceiling finishes 						
Methods of Facilitating Learning	<p>The course is to be facilitated through the following learning activities:</p> <ul style="list-style-type: none"> • Lecturing will be the main method of teaching and will be conducted in such a way as to promote maximum interaction between the lecturer and the students through frequent questioning and commenting. • External resource persons will be invited on a regular basis to teach specific topics in the course • Group work and group assignments at various levels of delivery, modules will form part of the teaching methods so that students can interact and share ideas. • Site visits will be made to places of construction interests, where students can see, observe, experiment or carry out any relevant exercises. These shall culminate in by-weekly site visit reports to be submitted for evaluation. • Workshops and field practical exercises shall be carried to appreciate common trades such as brick laying, carpentry and joinery, painting and decorating etc. • Students will be given design and detailing assignments addressing solutions to single storey building construction problems such as roof trusses, floor construction, foundation details, etc. • A portfolio of reports and detail drawings is to be submitted for internal and external moderation and evaluation. 						
Assessment Strategies	<table> <tr> <td>Diversified continuous assessment mode:</td><td>Recommended weight:</td></tr> <tr> <td>Assignments</td><td>60%</td></tr> <tr> <td>Tests</td><td>40%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. 	Diversified continuous assessment mode:	Recommended weight:	Assignments	60%	Tests	40%
Diversified continuous assessment mode:	Recommended weight:						
Assignments	60%						
Tests	40%						

	<ul style="list-style-type: none"> • A portfolio of works will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. <p>Final assessment weights are at discretion of the lecturer.</p>
Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.
Student Support and Learning Resources	<p>Course Resources: NUST library: student services, internet facilities, architecture portal Departmental Data base Input Lectures Public Lectures Student Handbook</p> <p>Prescribed Reading:</p> <ul style="list-style-type: none"> • Ching, F. (2008). Building construction illustrated. Hoboken, N. J: John Wiley & Sons. <p>Recommended Reading:</p> <ul style="list-style-type: none"> • Chudley R. & Greeno R. (2005) Construction Technology, Pearson Prentice Hall • Osbourn, D. & Greeno, R. (2006) Mitchell's Introduction to Building. Pearson Education • Stroud Forster, J. & Greeno, R. (2007) Mitchell's Structure & Fabric Pt. 1. Pearson Prentice Hall • Stroud Forster, J. & Greeno, R. (2007) Mitchell's Structure & Fabric Pt. 2. Pearson Prentice Hall

Course Title	LANDSCAPE AND CONTEXT
Course Code	LSC521S
NQF Level	5
Notional Hours	100 Contact: 45 hours; Directed self-learning and Self-Directed Learning: 43 hours; Assessment: 12 hours
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 2
Course Aims	The aim of this course is to provide students with an entrenched understanding that planning and design does not exist in a vacuum and that context is a key informant of the design process and final product, and engrain the principles and methodologies of contextually responsive planning and design.

Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Assess key attributes of the bio-physical context and related landscape systems, including climatic conditions, topography, geology and soils, hydrology and ecology; • Demonstrate understanding of the key attributes of the socio-cultural context, including sense / spirit of place, cultural attachments and traditions, livelihoods, community needs and desires, etc.; • Exhibit an understanding of the key theories related to contextual assessments, along with the relevant applications thereof; • Evaluate the key attributes of the physical context, including infrastructure, settlement patterns, architectural typology and connection, etc. • Demonstrate ability to analyse environmental context in general terms and design responsive elemental buildings and landscapes.
Comprehensive Learning Outcome	Demonstrate broad general knowledge of, and apply theoretical concepts and practical methodologies of contextual analysis to enable the generation of responsive designs.
Course Content	<ul style="list-style-type: none"> • Introduction to the meaning of context and that we do not live, plan and design in a vacuum; • Exploration of the relevance of context, particularly focusing on the built environment providing case studies of contextually responsive and unresponsive designs; • Broad overview of the key theoretical principles and methodologies; • Various contextual layers and systems and how are they identified, evaluated, interpreted and reflected? <ul style="list-style-type: none"> ○ Bio-physical environment; ○ Socio-cultural environment; and ○ Physical environment. • How to take the assessment findings into the design process: <ul style="list-style-type: none"> ○ Prioritising and integrating the data into relevant diagrams to take forward into the planning and design phase; ○ Documenting and interpreting key spatial implications to respond to in the planning and design phase; and ○ Responding to the context in planning and design (provision of precedent studies).

Methods of Facilitating Learning	<p>The course will be facilitated through the following learning activities:</p> <ul style="list-style-type: none"> • Lectures to be the main method of teaching. External resource persons to be invited to lecture on specific topics, as required; • Precedent and case studies: <ul style="list-style-type: none"> ○ The lecturer will support theory with relevant case studies and practical examples; ○ Students will research specific site interventions through both primary and secondary data collection methods. • Field visits and work: students will visit relevant sites to be exposed to specific contexts and demonstrate practical applications; • Group work: students will be divided into groups to undertake assignments, discuss topics, interact with each other, share ideas and draw conclusions and recommendations together; • Course integration: students will be required to integrate knowledge into their corresponding Architectural Design 1B projects. • The institutional My NUST e-learning platform will be used as the main communication platform for the course. 										
Assessment Strategies	<table border="0"> <tr> <td>Diversified continuous assessment mode:</td><td>Recommended weight:</td></tr> <tr> <td>Assignments</td><td>30%</td></tr> <tr> <td>Tests / Essays</td><td>40%</td></tr> <tr> <td>Assessment of Architectural Design 1B</td><td>20%</td></tr> <tr> <td>Participation</td><td>10%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • A portfolio of works will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. • Final assessment weights are at discretion of the lecturer. 	Diversified continuous assessment mode:	Recommended weight:	Assignments	30%	Tests / Essays	40%	Assessment of Architectural Design 1B	20%	Participation	10%
Diversified continuous assessment mode:	Recommended weight:										
Assignments	30%										
Tests / Essays	40%										
Assessment of Architectural Design 1B	20%										
Participation	10%										
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.</p>										

Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> Jellicoe, G.A., & Jellicoe, S. (2004) <i>The landscape of man: Shaping the environment from prehistory to the present day</i>. London: Thames & Hudson <p>Recommended reading:</p> <ul style="list-style-type: none"> Capra, F. (1997) <i>The Web of Life</i>. New York: Random House. Thompson, I. (2000) <i>Ecology, community, and delight: Sources of values in landscape architecture</i>. London: E & FN Spon.
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Course Title	ARCHITECTURAL DRAFTING
Course Code	ACD521S
NQF Level	5
Notional Hours	160 Contact: 30 hours; Directed Self-Learning: 60 hours; Self-Directed Learning: 58 hours; Assessment: 12 hours
NQF Credits	16
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 2
Course Aims	This course aims to equip students with the necessary knowledge and skills to convey design and construction information in the graphic and written form as part of the contractual framework for the erection of buildings.

Specific Learning Outcomes	<p>On completing the course, students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Demonstrate knowledge of the basic drafting techniques and related aspects pertaining to an elementary building; • Utilise basic drafting skills and techniques; • Compare types of drawings and projections; • Assess relationships between general layout drawings; • Compose drawings and sheet layouts; • Apply basic annotation.
Comprehensive Learning Outcome	<p>Apply the knowledge of two-dimensional manual drafting in conveying construction information appropriately.</p>
Course Content	<ul style="list-style-type: none"> • Drawing office equipment and the use of manual drafting equipment; • Drawing techniques i: developments of solid forms: <ul style="list-style-type: none"> ○ Primary elements (point, line, plane); ○ Line work (weights/thickness, intensity, consistency etc.); ○ Scale and proportion; ○ Drawing layout; • Drawing techniques ii: interpretation of solid forms and projections: <ul style="list-style-type: none"> ○ Site Plan ○ Plan (horizontal section) ○ Section (vertical) ○ Elevations ○ Measuring of an existing structure ○ Annotation ○ Basic dimensioning skills ○ Storage of information ○ Portfolio development and management
Methods of Facilitating Learning	<p>The course content will be delivered via methods that will ensure maximum intrinsic knowledge and a solid understanding of manual drafting principles. Instructional strategies / approaches will aim at student participation as individuals as well as group-based interaction. The following instructional strategies / approaches will be employed:</p> <ul style="list-style-type: none"> • Lectures and tutorials: to be employed to properly ground the theoretical concepts that underlie a learning domain; • Studio work: practical application of drafting techniques in a supervised studio setting. • The institutional My NUST e-learning platform will be used as the main communication platform for the course.

Course Aims	The major aim of the course is to broaden students' horizon beyond the core learning outcomes of the programme and to re-inforce students' analytical and synthesising abilities of relevant contemporary issues related to architecture and technology in the widest sense.						
Specific Learning Outcomes	On completion of the course students will, through assessment activities, show evidence of their ability to: <ul style="list-style-type: none"> Identify contemporary issues related to architecture and technology that affect Namibia, the African Continent and the World; Formulate responses to identified contemporary issues. 						
Comprehensive Learning Outcome	Examine relevant contemporary issues related to architecture and technology.						
Course Content	<p>Each year lecturers from the department will propose a number of topics from which students can choose one for the weeklong workshop.</p> <p>Due to the interdisciplinary nature of the field, this might include areas of politics and security, society, environment, economics, knowledge, skills and technology, ethics and aesthetics.</p> <p>The content developed by lecturers will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p>						
Methods of Facilitating Learning	<p>The course will be delivered in an intensive week-long workshop setting developed and lead by the respective lecturer or group of lecturers, where possible in collaboration with external practicing architects or other professionals, artists, cultural producers, activists, or civil society groups.</p> <p>The workshop format will depend on the specific topic and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>						
Assessment Strategies	<p>Given the workshop format of the course, only one assessment with a minimum of 6 separate assessment criteria will be developed for each topic which will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <table> <tr> <td>Diversified continuous assessment mode:</td> <td>Recommended weight:</td> </tr> <tr> <td>Assignment</td> <td>60%</td> </tr> <tr> <td>Active participation</td> <td>40%</td> </tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> Students need to acquire a minimum final mark of 50% to pass the course. Second opportunities do not apply for this course. Final assessment weights are at the discretion of the lecturer. 	Diversified continuous assessment mode:	Recommended weight:	Assignment	60%	Active participation	40%
Diversified continuous assessment mode:	Recommended weight:						
Assignment	60%						
Active participation	40%						

Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline, which will clearly define the purpose, aims and objectives of the course.</p> <p>Prescribed text book: During the annual development of the specific topics for the course, relevant readings are to be provided by the lecturer and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <p>Recommended reading: During the annual development of the specific topics for the course, relevant readings are to be provided by the lecturer and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p>

SEMESTER 3 COURSES

Course Title	ARCHITECTURAL DESIGN 2A
Course Code	ARD611S
NQF Level	6
Notional Hours	200 Contact: 15 hours; Directed Self-Learning (studio work): 120 hours and Self-Directed Learning: 50 hours; Assessment: 15 hours
NQF Credits	20
Prerequisites	Architectural Design 1A; Architectural Design 1B
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 3

Course Aims	<p>The main aim of this course is to cultivate an awareness of the expression of material and structure as generators for spatial design and to deepen student's skills to design tectonic building structures that are resolved to construction detail level.</p> <p>In addition, the course aims to deepen students' skills in communicating design ideas verbally and graphically. Students will be able to illustrate the reasoning that generated design decisions at the level of building form, material, structure through to detailing; develop student's ability to develop a building brief. Further the course is designed to enable students to produce technical drawings.</p>
Specific Learning Outcomes	<p>On completion of the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Analyse topography and develop an appropriate design response to site and topography; • Design materially and structurally expressive tectonic buildings; • Demonstrate understanding of how material and structural characteristics can be developed from overall building form through to construction detail; • Produce a set of technical drawings; • Demonstrate knowledge of the design process in the execution of design projects.
Comprehensive Learning Outcome	Plan and design buildings that are developed in their material and structural expression.
Course Content	<p>The overarching theme of the course is "Tectonics and Detail". Design projects will cover the following aspects:</p> <ul style="list-style-type: none"> • Introduction to topographical site analysis; • Introduction to public building typologies through precedent analysis; • Planning of small public facilities; • Theory of space, including tectonics, proportion, scale and spatial experience; • Expression of construction materials and methods through design.
Methods of Facilitating Learning	<p>Course delivery is studio-based with an explicit application of theoretical knowledge acquired in the complementary theory courses. Input lectures will ground studio projects in specific thematic areas, while students develop ideas in drawings and models under the supervision of a minimum of two studio tutors. Occasional group exercises, site visits and field trips will expose students to specific practical aspects and allow application of acquired knowledge.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>

Assessment Strategies	<p>Diversified continuous assessment will be achieved through design studio project assessments. 2 design modules will be lined up for the semester in an ascending order of complexity. Each module will consist of a rational number of interim critiques; altogether weighed 50%, and a final critique weighed 50%.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • Weighting of the design modules is at the discretion of the lecturer.
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST general rules and guidelines on moderation.</p> <p>In addition the following measures will be taken:</p> <ul style="list-style-type: none"> • End of year external portfolio examination; • The involvement of architects in practice for input seminars, participation in project critiques, etc., is strongly recommended. • Periodic public exhibition of students works attract stakeholders comments on quality achieved.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed Textbook:</p> <ul style="list-style-type: none"> • Frampton, K., & Cava, J. M. (2001). <i>Studies in tectonic culture: The poetics of construction in nineteenth and twentieth century architecture</i>. Cambridge Mass.: The MIT Press. <p>Recommended reading: Students are advised to read and consult books, architectural journals, technical magazines, NBR, brochures, and manufacturers' literature.</p> <ul style="list-style-type: none"> • Pallasmaa, J. (2014). <i>The eyes of the skin: Architecture and the senses</i>. Chichester: Wiley. • LeCuyer, A. W. (2001). <i>Radical tectonics</i>. New York, N.Y: Thames & Hudson.

Course Title	CONSTRUCTION TECHNOLOGY 2
Course Code	CST611S
NQF Level	6
Notional Hours	160 Contact: 45 hours; Directed Self-learning: 45 hours; Self-directed Learning: 58 hours; Assessment: 12 hours.
NQF Credits	16
Prerequisites	Construction Technology 1
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 3
Course Aims	This course aims to provide students with knowledge of framed structures.
Specific Learning Outcomes	On completing the course students will, through assessment activities, show evidence of their ability to: <ul style="list-style-type: none"> • Apply the theory of framed structures to solve specific construction problems. • Assess the impact of material choices in relation to framed structures • Discuss the construction process of framed structures. • Resolve constructive problems relating to the interaction of frame, floor and roof. • Analyse construction problems and be able to provide solutions to these.
Comprehensive Learning Outcome	Demonstrate knowledge of and apply construction methods of framed structures in the design of buildings.

Course Content	<ul style="list-style-type: none"> • Introduction to framed structures • Timber frame types • Timber framed construction • Cladding & infill, internal & external • Alternative frame construction • Timber framed roof construction • Regulatory requirements • Steel framed construction • Floors & facades • Stairways and stairway detailing • Regulatory framework • Introduction to concrete frame • Concrete substructure & foundations • Principles of casting concrete • Concrete columns, beams & slabs • Concrete staircases • Remedial measures for concrete works • Concrete finishes • Waterproofing
Methods of Facilitating Learning	<p>The course is to be facilitated through the following learning activities</p> <ul style="list-style-type: none"> • Lecturing will be the main method of teaching and will be conducted in such a way as to promote maximum interaction between the lecturer and the students through frequent questioning and commenting. • External resource persons will be invited on a regular basis to teach specific topics in the course • Group work and group assignments at various levels of delivery, modules will form part of the teaching methods so that students can interact and share ideas. • Site visits will be made to places of construction interests, where students can see, observe, experiment or carry out any relevant exercises. These shall culminate in by-weekly site visit reports to be submitted for evaluation. • Workshops and field practical exercises shall be carried to appreciate common trades such as brick laying, carpentry and joinery, painting and decorating etc. • Students will be given design and detailing assignments addressing solutions to single storey building construction problems such as roof trusses, floor construction, foundation details, etc. • Students are encouraged to do additional research based on recommended literature in the library as well as research on the Internet. • A portfolio of reports and detail drawings is to be submitted for internal and external moderation and evaluation.

Options (compulsory or elective)	Compulsory
Semester Offered	Semester 3
Course Aims	This course aims to expose students to the natural, social, cultural, economic, political and historical processes informing and influencing architectural theories. The course also capacitate students with the ability to demonstrate analytical and critical thinking in order to engage in critical debate on issues relating to contemporary architecture theory.
Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Analyse architectural theory themes covered by the course; • Conduct relevant research on contemporary architectural theory; • Display an awareness of the built environment and evaluate it in analytical and critical terms. • Assess own design projects in terms of architecture; proportion, scale, tectonics and spatial experience.
Comprehensive Learning Outcome	Evaluate architectural theory critically as embedded in a wider system of natural, social, cultural, economic, political and historical processes.
Course Content	<ul style="list-style-type: none"> • The human body in relation to architecture; proportion, tectonics and spatial experience; • Responsive environment focusing on contextualisation within a specific cultural and natural environment; • Function and form as structural generator; • Introduction to critical theory of architecture; • Debate in architecture on the concept of the dialectic: material and immaterial, ornament and austerity, honesty and deception, simplicity and complexity, and the object subject problem.
Methods of Facilitating Learning	<p>The course will be facilitated through the following learning activities:</p> <ul style="list-style-type: none"> • Lectures to be the main method of teaching. • Precedent studies: <ul style="list-style-type: none"> ○ The lecturer will support theory with relevant case studies and practical examples; ○ Students will conduct research through secondary data collection methods. • Group work: students will be divided into groups to undertake assignments, discuss topics, interact with each other, share ideas and draw conclusions and recommendations together; • Course integration: students will be required to integrate knowledge into their corresponding Architectural Design 2A assignments. • The institutional My NUST e-learning platform will be used as the main communication platform for the course.

Assessment Strategies	<p>Diversified continuous assessment mode:</p> <table> <tr> <td>Assignments</td><td>Recommended weight: 30%</td></tr> <tr> <td>Tests / Essays</td><td>40%</td></tr> <tr> <td>Application to Architectural Design 2A</td><td>20%</td></tr> <tr> <td>Participation</td><td>10%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> Students need to acquire a minimum final mark of 50% to pass the course. For second opportunities refer to Departmental Regulations. The final assessment weight is at discretion of the lecturer. 	Assignments	Recommended weight: 30%	Tests / Essays	40%	Application to Architectural Design 2A	20%	Participation	10%
Assignments	Recommended weight: 30%								
Tests / Essays	40%								
Application to Architectural Design 2A	20%								
Participation	10%								
Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.								
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed Textbook:</p> <ul style="list-style-type: none"> Smith, K. (2012). <i>Introducing Architectural Theory: Debating a Discipline</i>. New York: Routledge. <p>Recommended reading:</p> <ul style="list-style-type: none"> Ballantyne, A. (ed.). (2005). <i>Architecture Theory: A Reader in Philosophy and Culture</i>. Continuum: London, New York. Farmer, B. & Louw, H. (ed.). (1993). <i>Companion to Contemporary Architectural Thought</i>. Routledge: London. Habraken, N.J. (2001). 'What Use Theory? Questions of Purpose and Practice', in Çağlar, N. (ed.), <i>Re-integrating Theory and Design in Architectural Education</i>, 19th European Association for Architectural Education International Conference, Proceedings, 23-25 May 2001, Gazi University, Ankara / Turkey. EAAE: KU Leuven: 19-27. 								

Course Title	COMPUTER AIDED DRAFTING AND VISUALISATION
Course Code	CAD611S
NQF Level	6
Notional Hours	100 Contact: 45 hours; Directed self-learning and Self-Directed Learning: 40 hours; Assessment: 15 hours

NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 3
Course Aims	This course aims to provide students with skills to digitally produce construction and design documentation using CAD software. The course further provides students with the skills to digitally produce presentation documentation using both vector and pixel-based software.
Specific Learning Outcomes	On completion of the course students will, through assessment activities, show evidence of their ability to: <ul style="list-style-type: none"> • Use CAD software; • Use Vector-based graphic software; • Use Pixel-based graphic software.
Comprehensive Learning Outcome	Make use of CAD software and vector and pixel-based graphic software to visually communicate concept, design and construction documentation.
Course Content	<ul style="list-style-type: none"> • CAD software <ul style="list-style-type: none"> ○ 2d and 3d tools and their respective settings ○ Sections, elevations, plans, details and schedules extracted from a detailed 3d model ○ Project map, view map, layout book, and organizer ○ Workspaces, favourites families, project libraries and project files settings • Vector-based graphic software <ul style="list-style-type: none"> ○ Composition of imagery and text to produce presentation panels ○ Composition of imagery and text to produce documents • Pixel-based graphic software: <ul style="list-style-type: none"> ○ Layers ○ Basic toolset ○ Masking, marqueeing and blending techniques ○ Filters ○ Basic light and shadow manipulation
Methods of Facilitating Learning	The method of course delivery is a series of tutorials during which students will perform exercises in computer labs on PC workstations while the lecturer performs parallel tutorials on the projector. On-going interaction between lecturer and students will serve as the platform for skills and knowledge transfer. The institutional My NUST e-learning platform will be used as the main communication platform for the course.

Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 4
Course Aims	<p>The aim of this course is to cultivate an awareness of the social and cultural context as generators for spatial design and to deepen students' skills and knowledge to design appropriate and contextually responsive housing and neighbourhoods.</p> <p>In addition the course aims to introduce students to analysis of urban context; and to develop student's skills in communicating design ideas verbally and graphically in terms of design and urban context.</p>
Specific Learning Outcomes	<p>On completion of the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Analyse social context in general terms; • Discuss how spatial requirements are deduced from a social analysis; • Design socially responsive housing typologies and urban interventions at the neighbourhood scale (to be partly assessed in Housing and Everyday life course); • Represent architectural projects through technical drawing conventions to the level of Municipal Submission drawings; • Demonstrate knowledge of the design process in the execution of design projects.
Comprehensive Learning Outcome	Design socially responsive residential typologies within a residential context.
Course Content	<p>The overarching theme of the course is "Housing and Community". Design projects will be developed in the context of an existing informal neighbourhood and will cover the following aspects:</p> <ul style="list-style-type: none"> • Social analysis, spatial mapping and basic community needs assessment; • Introduction to housing typologies and urban interventions through precedent studies; • Incremental housing development; • Adequate construction materials and methods; • Municipal Submission requirements.
Methods of Facilitating Learning	<p>Course delivery is studio-based with an explicit application of theoretical knowledge acquired in the complementary theory courses. Input lectures will ground studio projects in specific thematic areas, while students develop ideas in drawings and models under the supervision of a minimum of two studio tutors. Occasional group exercises, site visits and field trips will expose students to specific practical aspects and allow application of acquired knowledge.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>

Assessment Strategies	<p>Diversified continuous assessment will be achieved through design studio project assessments. 2 design modules will be lined up for the semester in an ascending order of complexity. Each module will consist of a rational number of interim critiques; altogether weighed 50%, and a final critique weighed 50%.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • Weighting of the design modules is at the discretion of the lecturer.
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST general rules and guidelines on moderation.</p> <p>In addition the following measures will be taken:</p> <ul style="list-style-type: none"> • End of year external portfolio examination; • The involvement of architects in practice for input seminars, participation in project critiques, etc., is strongly recommended. • Periodic public exhibition of students works attract stakeholders comments on quality achieved.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed Textbook:</p> <ul style="list-style-type: none"> • Correa, C. (2000). <i>Housing and urbanisation</i>. London: Thames and Hudson. <p>Recommended reading: Students are advised to read and consult books, architectural journals, technical magazines, NBR, brochures, and manufacturers' literature.</p> <ul style="list-style-type: none"> • French, H. (2008). <i>Key urban housing of the 20th century: Plans, sections and elevations</i>. London: Laurence King. • Neufert, E., Neufert, P., & Kister, J. (2012). <i>Architects' data</i>. Chichester, West Sussex, UK: Wiley-Blackwell.

Course Title	BUILDING STRUCTURES
Course Code	BDS621S
NQF Level	6
Notional Hours	160 Contact: 45 hours; Directed self-learning and Directed Self-Learning: 45 hours; Self-Directed Learning: 58 hours; Assessment: 12 hours
NQF Credits	16
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 4
Course Aims	The course aims to introduce students to the principles of structures as related to building design and building cost in different soil and climatic conditions.
Specific Learning Outcomes	On completing the course students will, through assessment activities, show evidence of their ability to: <ul style="list-style-type: none"> • Demonstrate understanding of the theories of structures related to building design and building cost • Apply knowledge of structures to create functional and cost-effective buildings • Apply methods of managing forces in building design to avoid structural failure at optimum cost • Analyse various ways in which structures affect building design and cost • Analyse existing buildings in structural terms with the aim creating safe, functional and cost-effective interventions
Comprehensive Learning Outcome	Analyse existing and new structures and apply the knowledge to realise effective building design.
Course Content	<ul style="list-style-type: none"> • Introduction to strength and stability • Bending moments and shear force diagrams • Stress and strain • Soil as a building material • Substructure • Superstructure • Roof structure • External works • Temporary work structures • Fire protection (in relation to structural sizes and peripheral treatment)

Course Title	HOUSING AND EVERYDAY LIFE
Course Code	HEL621S
NQF Level	6
Notional Hours	100 Contact: 45 hours; Directed Self-Learning and Self-Directed Learning: 43 hours; Assessment: 12 hours
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 4
Course Aims	This course aims to cultivate students' awareness of collective housing as a critical arena for an architectural and urban intervention. The course also aims at equipping students with an understanding of social, economic and political conditions that influence the provision of adequate housing in theory and practice.
Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Evaluate the historical development of collective housing as a social, architectural and urban question; • Analyse international historical and contemporary precedents; • Critique the role of policy, land rights and financial instruments in the provision of and access to adequate housing in theory and practice; • Scrutinise housing typologies in terms of everyday life as well as in their relationship to the larger urban system. • Examine the challenges of adequate housing developments in Namibia. • Design socially responsive housing typologies and urban interventions at the neighbourhood scale
Comprehensive Learning Outcome	Evaluate collective housing in terms of architectural, urban, social and cultural considerations.
Course Content	<ul style="list-style-type: none"> • Pre-industrial typologies of collective housing, in Southern Africa and internationally; • Collective housing as the locus of the development of modernism; • Historical and contemporary international examples of collective housing and their underlying urban system and social context; • Legacies of the Modernist and Apartheid planning and housing; • Slum improvement schemes and sites and services; • Contemporary housing provision in Namibia.

Course Title	INTRODUCTION TO SURVEY AND MAPPING
Course Code	ISM520S
NQF Level	5
Notional Hours	5 hours per week. 3 Hours theory and 2 hours practical per week.
NQF Credits	12 Credits
Prerequisites	Introduction to Geospatial Data (B. Arch students to be exempted from prerequisite)
Options (compulsory or elective)	Compulsory
Semester Offered	4
Course Aims	On successful completion of this course, students should understand basic plane surveying principles, techniques, technology and calculations, and should be able to manually plot coordinates and contours using surveyed data.
Specific Learning Outcomes	<p>On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> • Define Surveying and distinguish between the different branches of Surveying • Explain grid reference systems used in Namibia and regional countries • Plot positions of survey points on a grid system at various map scales; • Perform basic survey calculations: Polar, join, intersection, reverse polar, areas and volumes; • Handle and use, with extreme care, survey equipment such as theodolites, total stations, steel tapes, ranging rods, tripods and GPS's; • Apply corrections to observations; • Describe and carry out the field procedures for levelling; • Describe and carry out the field procedures for polars; • Describe and carry out the field procedures for measuring a closed traverse; • Describe the different methods for using GPS and demonstrate a RTK survey; • Perform basic setting out of points
Comprehensive Learning Outcome	Analyse the basic principles of land surveying and apply various technical skills to plot surveying outputs.

Course Content	<ul style="list-style-type: none">• Types of Surveying• Chain Surveying• Manual Drafting• Manual drafting and contour interpolation• Basic survey theory (coordinate geometry)• Calculation of joins and polars• Introduction to intersection, resection and traverse• Basic Differential Levelling• Basic field survey methods (Total Station and Theodolite): Fixing and staking of points• Introduction to GNSS (GPS, GLONASS, Galileo)																					
Methods of Facilitating Learning	Classroom lectures, individual assignments and projects, guided tutorials and fieldwork.																					
Assessment Strategies	<p>Assessment of this course is based on continuous evaluation of group and individual work. The final mark for the course will be the weighted average of the following marks:</p> <table><tr><td>Test 1</td><td>=</td><td>20%</td></tr><tr><td>Test 2</td><td>=</td><td>20%</td></tr><tr><td>Test 3</td><td>=</td><td>20%</td></tr><tr><td>Practical Assignment 1</td><td>=</td><td>15%</td></tr><tr><td>Practical Assignment 2</td><td>=</td><td>15%</td></tr><tr><td>Practical Assignment 3</td><td>=</td><td>10%</td></tr><tr><td>Total</td><td>=</td><td>100%</td></tr></table> <p>The pass mark for the course is 50%.</p> <p>There are no final examinations or second opportunities for this course. A student, who obtains a final mark of less than 50% for this course, will have to repeat the whole course during the following year.</p> <p>All fieldwork (group and individual) is compulsory. A student who misses any fieldwork or excursion without permission (from the course coordinator) or a valid excuse (supported by documentary evidence, e.g. a medical certificate), will fail this course.</p> <p>A special test or assignment may be arranged for a candidate who, for good reason supported with documentary evidence, missed a class test or assignment. No candidate will be allowed more than one (1) special test and one (1) assignment.</p>	Test 1	=	20%	Test 2	=	20%	Test 3	=	20%	Practical Assignment 1	=	15%	Practical Assignment 2	=	15%	Practical Assignment 3	=	10%	Total	=	100%
Test 1	=	20%																				
Test 2	=	20%																				
Test 3	=	20%																				
Practical Assignment 1	=	15%																				
Practical Assignment 2	=	15%																				
Practical Assignment 3	=	10%																				
Total	=	100%																				
Quality Assurance Arrangements	The course outline, material and assessments are moderated by an internal moderator.																					
Student Support and Learning Resources	<p>Prescribed Reading: NUST study guide, Slides</p> <p>Recommended Reading: Landman K, Hunter T, Jackson J. <i>An Introduction to Engineering Surveying</i>. ISBN 978-0-70218-872-5</p>																					

Course Title	VERTICAL STUDIO 2
Course Code	VSD521S
NQF Level	5
Notional Hours	40 Contact: 16 hours; Directed self-learning and Self-Directed Learning: 22 hours; Assessment: 2 hours
NQF Credits	4
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semesters 2, 4, 6
Course Aims	The major aim of the course is to broaden students' horizon beyond the core learning outcomes of the programme and to re-inforce students' analytical and synthesising abilities of relevant contemporary issues related to art and cultural production in the widest sense.
Specific Learning Outcomes	On completion of the course students will, through assessment activities, show evidence of their ability to: <ul style="list-style-type: none"> • Identify contemporary issues related to art and cultural production that affect Namibia, the African Continent and the World; • Formulate responses to identified contemporary issues.
Comprehensive Learning Outcome	Examine relevant contemporary issues related to art and cultural production.
Course Content	<p>Each year lecturers from the department will propose a number of topics from which students can choose one for the week-long workshop.</p> <p>Due to the interdisciplinary nature of the field, this might include areas of politics and security, society, environment, economics, knowledge, skills and technology, ethics and aesthetics.</p> <p>The content developed by lecturers will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p>

Methods of Facilitating Learning	<p>The course will be delivered in an intensive week-long workshop setting developed and lead by the respective lecturer or group of lecturers, where possible in collaboration with external practicing architects or other professionals, artists, cultural producers, activists, or civil society groups.</p> <p>The workshop format will depend on the specific topic and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>						
Assessment Strategies	<p>Given the workshop format of the course, only one assessment with a minimum of 6 separate assessment criteria will be developed for each topic which will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <table> <tr> <td>Diversified continuous assessment mode:</td><td>Recommended weight:</td></tr> <tr> <td>Assignment</td><td>60%</td></tr> <tr> <td>Active participation</td><td>40%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • Second opportunities do not apply for this course. • Final assessment weights are at the discretion of the lecturer. 	Diversified continuous assessment mode:	Recommended weight:	Assignment	60%	Active participation	40%
Diversified continuous assessment mode:	Recommended weight:						
Assignment	60%						
Active participation	40%						
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.</p>						
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline, which will clearly define the purpose, aims and objectives of the course.</p> <p>Prescribed text book: During the annual development of the specific topics for the course, relevant readings are to be provided by the lecturer and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <p>Recommended reading: During the annual development of the specific topics for the course, relevant readings are to be provided by the lecturer and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p>						

SEMESTER 5 COURSES

Course Title	WORK INTEGRATED LEARNING: ARCHITECTURE
Course Code	WIA711S
NQF Level	7
Notional Hours	600 hours (in an architectural office)
NQF Credits	60
Prerequisites	Architectural Design 2A; Architectural Design 2B; Construction Technology 2
Options (compulsory or elective)	Compulsory
Semester Offered	5
Course Aims	This course aims to introduce students to business and professional practice and procedures in the architectural profession through work experience in an Architectural Practice. Students will be capacitated with the necessary knowledge and skills to convey design and construction information in the graphic and written form as part of the contractual framework for the erection of buildings.
Specific Learning Outcomes	<p>On completing the course, students will through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none">• Evaluate the culture and realities of the architectural profession in a real workplace environment;• Evaluate and utilise basic concepts and principles of architectural practice;• Apply learnt competencies and initiatives to actual architectural situations in a workplace.;• Reconcile practice and theory, especially regarding the application of design, construction materials and methods;• Master the following drawing and specifying conventions in line with industry standards:<ul style="list-style-type: none">○ Interrelation between drawings;○ Schedules and component specifications;○ Working drawings to be used as contract documents with a bill of quantities;○ Application of appropriate National Building Regulations (NBR);○ Local authority approval requirements and procedures.
Comprehensive Learning Outcome	Apply acquired competencies in a real professional architectural work environment.

Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines for moderation.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed Textbook:</p> <ul style="list-style-type: none"> • Latest Version of the Namibia Institute of Architects Practice Manual <p>Recommended reading:</p> <ul style="list-style-type: none"> • Chen, G. (2010). <i>Architectural practice simplified: A survival guide and checklists for building construction</i>. Denver, Colo: Outskirts Press.

SEMESTER 6 COURSES

Course Title	ARCHITECTURAL DESIGN 3
Course Code	ARD721S
NQF Level	7
Notional Hours	200 hours
NQF Credits	20
Prerequisites	Work Integrated Learning: Architecture
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 6
Course Aims	<p>The aim of this course is to consolidate student's skills and knowledge to design appropriate integrated and contextually responsive buildings that are technically resolved to construction detail level.</p> <p>In addition the course aims to further student's ability to develop a building brief and program; develop student's ability in analysing a given site; develop student's ability of integrating design and construction, and consolidate student's skills in communicating design ideas graphically both in terms of design and technical drawings.</p>

Specific Learning Outcomes	<p>On completion of the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> Analyse an urban context; Apply knowledge and skills acquired throughout the programme to plan, design and carry out a supervised design project; Design and evaluate wide range of civil engineering infrastructure Develop a building brief and program for a specified typology; Manage a design from concept to implementation (planning, material selection, design synthesis, evaluation and implementation); Design of a multi-level public building with requisite parking facilities to be developed to construction detail level; Document and produce a graphically coherent design and technical documentation and present the findings using a variety of techniques to a panel of technical experts.
Comprehensive Learning Outcome	Design a multi-level public building in an urban context to technical documentation level.
Course Content	<p>The overarching theme of the course is “Context and Building”. The design project will cover the following aspects:</p> <ul style="list-style-type: none"> Relation between a public building and its urban context; Precedent analysis of relevant public building typologies; Organisational principles in relation to a complex building program and site informants; Impact of planning / construction grids; National Building Regulations requirements for public buildings with emphasis on access, fire safety and parking; Basic principles of sustainable design; Integration of relevant technical services for public buildings; Envelope design principles relating to building orientation, form, materials and detailing.
Methods of Facilitating Learning	<p>Course delivery is studio-based with an explicit application of theoretical knowledge acquired in the complementary theory courses. Input lectures will ground studio projects in specific thematic areas, while students develop ideas in drawings and models under the supervision of a minimum of two studio tutors. Occasional group exercises, site visits and field trips will expose students to specific practical aspects and allow application of acquired knowledge.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>
Assessment Strategies	<p>Diversified continuous assessment will be achieved through design studio project assessments. 1 design module will be lined up for the semester to comprehensively integrate all prior learning. The module will consist of a rational number of interim critiques; altogether weighed 40%, and a final critique weighed 60%.</p> <p>Notes:</p> <ul style="list-style-type: none"> Students need to acquire a minimum final mark of 50% to pass the course.

Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST general rules and guidelines on moderation.</p> <p>In addition the following measures will be taken:</p> <ul style="list-style-type: none"> • End of semester external portfolio examination; • The involvement of architects in practice for input seminars, participation in project critiques, etc., is mandatory at this level. • Periodic public exhibition of students works to attract stakeholders comments on quality achieved.
Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> • Neufert, E., Neufert, P., & Kister, J. (2012). <i>Architects' data</i>. Chichester, West Sussex, UK: Wiley-Blackwell. <p>Recommended reading: Students are advised to read and consult books, architectural journals, technical magazines, NBR, brochures, and manufacturers' literature.</p> <ul style="list-style-type: none"> • Lepik, A., Bainbridge, S., Pepper, I., Schleussner, L., & Technische Universität München. (2013). <i>Afritecture: Building social change</i>. Ostfildern: Hatje Cantz. • Noble, J. A. (2011). <i>African identity in post-apartheid public architecture: White skin, black masks</i>. Farnham: Ashgate Pub. • Deckler, T., Graupner, A., & Rasmuss, H. (2006). <i>Contemporary South African architecture in a landscape of transition</i>. Cape Town: Double Storey Books. • Henley, S. (2007). <i>The architecture of parking</i>. New York: Thames & Hudson.

Course Title	ENVIRONMENT AND SERVICES
Course Code	EAS621S
NQF Level	6
Notional Hours	160 Contact: 60 hours; Directed Self-Learning and Self-Directed Learning: 88

	hours; Assessment: 12 hours
NQF Credits	16
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 6
Course Aims	The aim of this course is to equip students with a sufficient working knowledge of building services and environmental technologies applicable to the building design and construction.
Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Evaluate environmental and sustainable technologies and apply such knowledge to new situations in building design; • Analyse environmental problems and recommend effective solutions internal building environmental control; • Evaluate the principles that underlay the proper functioning of a building services installation as an integral whole; • Synthesise services and draw conclusions that can be applied in new situations in building design.
Comprehensive Learning Outcome	Evaluate environmental and sustainable technologies and apply theoretical knowledge of building services to building design.
Course Content	<ul style="list-style-type: none"> • Sustainable design and design for energy efficiency: orientation, winter sun, summer sun, thermal mass, prevailing winds, water, trees; • Active and Passive methods of internal environmental control; • Heating and cooling, natural heating and cooling; • Service ducts • Cold and hot water supply • Drainage above and below ground and sewerage disposal • Electrical and electronic installations • Thermal installations: energy sources, heat transfer mechanisms, heat pump, central heating, under floor heating; • Heat distribution systems: heat control; • Ventilation: natural ventilation, artificial ventilation, cross ventilation, stack effect; • Air conditioning systems; • Sustainable and energy efficient design Technologies; • Refuse collection and storage

Methods of Facilitating Learning	<p>The course will be facilitated through the following methods:</p> <ul style="list-style-type: none"> • Lecturing will be the main method of teaching. It will be conducted in such a way so as to promote maximum interaction between lecturer and students through frequent questioning and commenting; • External resource persons will be invited on a regular basis to teach specialized topics; • Group work will also form part of the teaching method so that students can interact and share ideas; • Field trips to places of interests / relevant case studies i.e. where students can see, observe, experiment or carry out any relevant exercises. 				
Assessment Strategies	<p>Diversified continuous assessment mode:</p> <table> <tr> <td>• Assignments</td><td>Recommended weight: 60%</td></tr> <tr> <td>• Tests</td><td>40%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • A portfolio of works will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. • Final assessment weights are at discretion of the lecturer. 	• Assignments	Recommended weight: 60%	• Tests	40%
• Assignments	Recommended weight: 60%				
• Tests	40%				
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST general rules and guidelines on moderation.</p>				
Student Support and Learning Resources	<p>NUST level: The library, student services, internet facilities, architecture portal</p> <p>Department level:</p> <ul style="list-style-type: none"> • Internet facilities available • Public lectures <p>Course level:</p> <ul style="list-style-type: none"> • Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course • Students will be provided with a study guide that will also clearly define what the final performance requirements will be. • Texts as prescribed by Lecturer from time to time. <p>Prescribed Textbook:</p> <ul style="list-style-type: none"> • Burberry P. (1997), 5th edition, <i>Environment and Services</i>: BT Batsford, London <p>Recommended reading:</p> <ul style="list-style-type: none"> • Gallo, C., Sala, M., & Sayigh, A. A. M. (1998). <i>Architecture: Comfort and energy</i>. New York: Elsevier Science. • Behling, S., Behling, S., Schindler, B., & Foster, N. (1996). <i>Sol power: The evolution of solar architecture</i>. Munchen: Prestel. • Napier, A., & Arch, B. (1999). <i>Enviro-friendly methods in small building design for South Africa</i>. Durban, South Africa: Alaric Napier. 				

Course Title	PRINCIPLES OF URBAN DESIGN
Course Code	PUD721S
NQF Level	6
Notional Hours	100 Contact: 30 hours; Directed self-learning and Self-Directed Learning: 52 hours; Assessment: 18 hours
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 6
Course Aims	The aim of this course is to provide students with concrete knowledge of how urban form has transitioned from settlement to town / city over time, reflecting on how this evolving form has responded to various environmental, social, political and philosophical situations and concepts. Students will further be able to demonstrate the ability to critically analyse current urban form and apply solutions to site- and area-specific, as well as relevant national and even global concerns; and skills to motivate the implementation of urban design proposals.
Specific Learning Outcomes	<p>On completing the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> • Demonstrate literacy in urban form and its evolution through time in response to various environmental and social influences; • Exhibit an understanding of the key theoretical principles of urban design, along with the relevant applications thereof. • Demonstrate an appreciation for the need for improved and responsive contemporary urban design along with an attitude of integration between the role players in the arena of urban design; • Evaluate urban environments according to best practice methodologies and foci; including the analysis of urban form and how it has responded to historical influences and contemporary constraints; • Demonstrate comprehensive knowledge of the urban design processes; and • Generate arguments / motivations to enforce and “sell” urban design proposals to various stakeholders.
Comprehensive Learning Outcome	Demonstrate understanding of the historical development of urban environments as a basis for developing urban design frameworks that are contextual and that respond to stakeholder and community needs.

Course Content	<ul style="list-style-type: none"> • The development of urban form from settlement to town and city through the ages, with particular focus on the elements and institutions of urban form, including the city edge, urban divisions, public places, the street and urban process; • Contemporary urban design theory: principles and application; • The importance of urban design: exploration of the relevance of and need for improved and integrated urban design, particularly focusing on local and international case studies that exhibit the extremes of urban design implementation; • Urban design role players; • Contemporary spatial, functional and policy constraints to applying good practice urban design and the methodologies to respond to these; • Analysis of the urban landscape: key principles, areas of focus and methodologies; • Urban planning and design process, with specific attention to responsiveness to analysis findings; and • Influencing stakeholder perceptions by providing concrete and indisputable motivation. 										
Methods of Facilitating Learning	<p>The course will be facilitated through the following learning activities:</p> <ul style="list-style-type: none"> • Lectures to be the main method of teaching. External resource persons to be invited to lecture on specific topics, as required; • Case and precedent studies: <ul style="list-style-type: none"> ○ The lecturer will support theory with relevant precedent studies and practical examples; and ○ Students will research specific site case studies to demonstrate theoretical applications. • Field visits and work: students will visit relevant sites to be exposed to specific urban design principles and needs; • Group work: students will be divided into groups to undertake assignments, discuss topics, interact with each other, share ideas and draw conclusions and recommendations together; • Course integration: students will be assessed on integration of knowledge into their corresponding Architectural Design 3 project. • The institutional My NUST e-learning platform will be used as the main communication platform for the course. 										
Assessment Strategies	<table> <tr> <td>Diversified continuous assessment mode:</td><td>Recommended weight:</td></tr> <tr> <td>Group Assignments</td><td>30%</td></tr> <tr> <td>Individual Assignments</td><td>40%</td></tr> <tr> <td>Tests / Essays</td><td>20%</td></tr> <tr> <td>Participation</td><td>10%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • A portfolio of works will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. • Final assessment weights are at discretion of the lecturer. 	Diversified continuous assessment mode:	Recommended weight:	Group Assignments	30%	Individual Assignments	40%	Tests / Essays	20%	Participation	10%
Diversified continuous assessment mode:	Recommended weight:										
Group Assignments	30%										
Individual Assignments	40%										
Tests / Essays	20%										
Participation	10%										
Quality Assurance Arrangements	<p>Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.</p>										

Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> Gehl, J. (2011). <i>Life between buildings: Using public space</i>. Washington, DC: Island Press. <p>Recommended reading:</p> <ul style="list-style-type: none"> TBC
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Course Title	COMPUTER GENERATED IMAGERY
Course Code	CGI721S
NQF Level	7
Notional Hours	100 Contact: 30 hours; Directed self-learning and Self-Directed Learning: 52 hours; Assessment: 18 hours
NQF Credits	10
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semester 6
Course Aims	This course aims to provide students with the skills to produce and render concept models; provide students with the skills to produce and render photo-realistic models, and provide students with the skills to manipulate and blend both rendered and photographic imagery.
Specific Learning Outcomes	<p>On completion of the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> Use SketchUp software at an advanced level; Use Lumion software at an advanced level; Use Vector-based graphic software at an advanced level; Manipulate and blend both rendered and photographic imagery.

Comprehensive Learning Outcome	Utilise 3D modelling software, rendering software and post rendering pixel-based graphic software to produce imagery that portrays concept and design.						
Course Content	<ul style="list-style-type: none"> • SKETCHUP <ul style="list-style-type: none"> ○ “Large Toolset” tools ○ Components and groups ○ Export and import different file formats • LUMION <ul style="list-style-type: none"> ○ Place materials ○ Place objects ○ Animate objects ○ Various image filters ○ Various movie filters • PHOTOSHOP (focusing on post rendering techniques) <ul style="list-style-type: none"> ○ Populate render with .png imagery ○ Manipulate texture/material ○ Manipulate light ○ Manipulate shadow 						
Methods of Facilitating Learning	<p>The method of course delivery is a series of tutorials during which students will perform exercises in computer labs on PC workstations while the lecturer performs parallel tutorials on the projector. On-going interaction between lecturer and students will serve as the platform for skills and knowledge transfer.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>						
Assessment Strategies	<table border="0"> <tr> <td>Diversified continuous assessment mode:</td><td>Recommended weight:</td></tr> <tr> <td>Assignments</td><td>90%</td></tr> <tr> <td>Participation</td><td>10%</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • Students need to acquire a minimum final mark of 50% to pass the course. • A portfolio of works will be required for internal and external moderation. • For second opportunities refer to Departmental Regulations. • Final assessment weights are at the discretion of the lecturer. 	Diversified continuous assessment mode:	Recommended weight:	Assignments	90%	Participation	10%
Diversified continuous assessment mode:	Recommended weight:						
Assignments	90%						
Participation	10%						
Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST’s general rules and guidelines on moderation.						

Student Support and Learning Resources	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline which will clearly define the purpose, aims and objectives of the course</p> <p>Prescribed text book:</p> <ul style="list-style-type: none"> • Bauer, P. (2013). <i>Photoshop CC for dummies</i>. Hoboken, N.J: John Wiley & Sons, Inc. • Chopra, A. (2014). <i>Sketchup 2014 for dummies</i>. • Cardoso, C. (2013). <i>Getting started with Lumion 3D</i>. Birmingham, UK: Packt Publishing. <p>Recommended reading:</p> <ul style="list-style-type: none"> • www.graphissoft.com • www.arqui9.com • www.lumion.com • www.udemy.com • www.sketchup.com
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Course Title	VERTICAL STUDIO 3
Course Code	VST621S
NQF Level	6
Notional Hours	40 Contact: 16 hours; Directed self-learning and Self-Directed Learning: 22 hours; Assessment: 2 hours
NQF Credits	4
Prerequisites	None
Options (compulsory or elective)	Compulsory
Semester Offered	Semesters 2, 4, 6
Course Aims	The major aim of the course is to broaden students' horizon beyond the core learning outcomes of the programme and to re-inforce students' analytical and synthesising abilities of relevant contemporary socio-spatial issues in the widest sense.

Specific Learning Outcomes	<p>On completion of the course students will, through assessment activities, show evidence of their ability to:</p> <ul style="list-style-type: none"> Contextualise contemporary socio-spatial issues that affect Namibia, the African Continent and the World; Analyse and assess the impact of contemporary issues on society; Develop socio-spatial strategies to mitigate identified impacts. 						
Comprehensive Learning Outcome	Examine relevant contemporary socio-spatial issues						
Course Content	<p>Each year lecturers from the department will propose a number of topics from which students can choose one for the week-long workshop.</p> <p>Due to the interdisciplinary nature of the field, this might include areas of politics and security, society, environment, economics, knowledge, skills and technology, ethics and aesthetics.</p> <p>The content developed by lecturers will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p>						
Methods of Facilitating Learning	<p>The course will be delivered in an intensive week-long workshop setting developed and lead by the respective lecturer or group of lecturers, where possible in collaboration with external practicing architects or other professionals, artists, cultural producers, activists, or civil society groups.</p> <p>The workshop format will depend on the specific topic and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <p>The institutional My NUST e-learning platform will be used as the main communication platform for the course.</p>						
Assessment Strategies	<p>Given the workshop format of the course, only one assessment with a minimum of 6 separate assessment criteria will be developed for each topic which will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <table> <tr> <td>Diversified continuous assessment mode:</td> <td>Recommended weight:</td> </tr> <tr> <td>Assignment</td> <td>60%</td> </tr> <tr> <td>Active participation</td> <td>40%</td> </tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> Students need to acquire a minimum final mark of 50% to pass the course. Second opportunities do not apply for this course. Final assessment weights are at the discretion of the lecturer. 	Diversified continuous assessment mode:	Recommended weight:	Assignment	60%	Active participation	40%
Diversified continuous assessment mode:	Recommended weight:						
Assignment	60%						
Active participation	40%						
Quality Assurance Arrangements	Moderation of assessment will be done in accordance with the NUST's general rules and guidelines on moderation.						

<p>Student Support and Learning Resources</p>	<p>NUST level: NUST library, student services, internet facilities, My NUST e-learning platform, FabLAB</p> <p>School level: School-based induction</p> <p>Department level: Model building workshop, laser cutter, Katrin Vaatz Resource Centre, Computer labs and Internet facilities, Public lectures</p> <p>Course level: Students will be provided with a detailed course outline, which will clearly define the purpose, aims and objectives of the course.</p> <p>Prescribed text book: During the annual development of the specific topics for the course, relevant readings are to be provided by the lecturer and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p> <p>Recommended reading: During the annual development of the specific topics for the course, relevant readings are to be provided by the lecturer and will be evaluated and approved by a Departmental Committee to ensure adequate alignment with the learning outcomes outlined above.</p>
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