

Nelson Mandela University South Campus Accreditation Report



Report of the SACAP Accreditation Board to the Department of Architectural Technology and Interior Design, South Campus, at the Nelson Mandela University.

The purpose of the accreditation visit is for Continued Accreditation.

17 – 19 April 2023

Final Report



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Lists of Acronyms

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| AB | Accreditation Board |
| ADAD | Advance Diploma in Architectural Design |
| ADAT | Advance Diploma in Architectural Technology |
| ALS | Architecture Learning Site |
| CA | Canberra Accord |
| Cr | Credit |
| CBE | Council for the Built Environment |
| CHE | Council on Higher Education |
| DAT | Diploma in Architectural Technology |
| DHET | Department of Higher Education and Training |
| NMU | Nelson Mandela University |
| NQF | National Qualifications Framework |
| PPE | Professional Practice Examination |
| PrArch | Professional Architect |
| SACAP | South African Council for the Architectural Profession |
| SER | Self-Evaluation Report |

1. Executive Summary

- 1.1 SACAP is mandated in terms of section 13 of the Architectural Profession Act 44 of 2000 to undertake accreditation visit to any educational institution which has a department, school or faculty of architecture and either conditionally or unconditionally grant, refuse or withdraw accreditation to all educational institutions and their educational programmes with regard to architecture.
- 1.2 On the 17 – 19 April 2023, the SACAP Council undertook an accreditation visit to the Department of Architectural Technology and Interior Design, South Campus, Nelson Mandela University (NMU) in order to assess the following qualifications:
- a) Diploma in Architectural Technology;
 - b) Advance Diploma in Architectural Design; and
 - c) Advance Diploma in Architectural Technology
- 1.3 Having considered the Head of Department presentation and the interviewers of the staff members. The AB lauds the NMU for their vision of “*Humanising Student-Centric Approach.*” To achieve this vision, the Department has made a considerable effort to help struggling students to enter the ALS. This has improved the demographics of student profile. The AB also appreciated the Department’s effort to employ young academics who are well equipped with the necessary knowledge and skills required to teach the modules. The expertise of the lectures enabled students to perform well. This is demonstrated by the excellent presentation of student’s portfolios.
- 1.4 The AB noted some challenges, and one of the challenges is lack of transformation amongst the lectures and external moderators. Therefore, the Department must develop a strategy to diversify lectures and moderators within the next twelve months of issuing the report. Furthermore, the Department must ensure that the students available for interview are representative and diversified.
- 1.5 The Department has overcome the challenges presented by COVID-19. This is due to the pedagogic approach of online and blended modes of teaching. The initiative has enabled all students to have access to resources such as computers, the library for research purposes and access to onsite teaching support for areas where they are lacking. In doing so, students excelled in their studies and produced good portfolio of work, which was evident during the inspection of students’ files.
- 1.6 The AB received good student’s portfolios, and also noted that the collaboration between the Department and the professional practice industry assisted students to

acquire practical skills in order to prepare for practice. Moreover, the throughput of architectural graduates is significant and this contributes positively to the skills pipeline in the built environment.

1.7 Lastly, the AB wishes to thank the Head of Department: Mr. Tonga Hyacinthe, and the Director of School: Mr. Boban Varghese for their time, effort, arrangements, and hospitality to ensure that the accreditation visit is successful. We also wish to extend our gratitude to the Staff, External Moderators, Students and Part-time lecturers represented at the online and onsite visit for making time available and sharing information.

Recommendations

1.8 The Council is satisfied with the outcomes of the accreditation visit. The NMU South Campus satisfies the minimum accreditation standards for their programmes, therefore, the Council grant NMU South Campus Unconditional Accreditation status.

1.9 The Council further decided that the Department must provide a report to SACAP within 24 months after issuing the Accreditation report addressing on the issues detailed below. The report must be submitted to the SACAP Manager: Education & Accreditation.

Transformation

- a) The management must develop a strategy to transform the ALS in relation to the demographic profile of the staff and students, including the external moderators.
- b) The management must develop a strategy to support the previously disadvantaged students in order to ensure successful advancement to the higher Diploma or Advance Diploma.
- c) The ALS shows a growth on students' access and demographics since their last accreditation. The management must develop further strategies to maintain access to students from previously disadvantaged background into architectural education while not compromising the admission requirements and standards.

Curriculum and Assessment

- a) The management must restructure the curriculum to incorporate social aspects within their study area.
- b) The focus of the curriculum must be shifted to include indigenous knowledge.
- c) The curriculum could gain from an approach to building design.

Teaching and Learning

- a) Management must encourage research-driven approaches to problem-solving.
- b) Management must maintain their vertical and horizontal approaches towards curriculum design.

Teaching staff and External moderators

- a) Management must ensure integrated teaching of related courses to deal with high staff to student ratio.
- b) The management must apply a more rigour assessment strategy, with constant feedback to improve results for all assessments.

Facilities & Resources

- a) The Management must prioritise the appointment of qualified permanent staff to ease the workload and improve the staff to student ratio in especially the Studio based modules.
- b) Management must identify a space to provide or build a fully equipped workshop that would assist the students in work output.

2. Introduction

2.1 SACAP is legally charged to conduct accreditation visits to any educational institution which has a department, school or faculty of architecture and either conditionally or unconditionally grant, refuse or withdraw accreditation to all educational institutions and their educational programmes with regard to architecture. The objective of the accreditation visit is to determine whether educational programmes meet the

standards prescribed by SACAP. The accreditation visit is undertaken by a duly appointed AB.

2.2 The accredited qualification enables graduates to register with SACAP as Candidate Architectural Draughtsperson (CAD, Candidate Architectural Technologists (CAT), Candidate Senior Architectural Technologists (CAST), Candidate Professional Architects.

3. Aim and Objective

The accreditation visit by SACAP is subject to sections 5 and 7 of the Higher Education Act, 1997. The aim and objective of accreditation visit is to evaluate the quality of architectural educational programmes against the standards of education as set out in the SACAP 10 competencies. The SACAP accreditation system is substantially equivalent to all Canberra Accord signatories. This means that the SACAP accredited architectural programmes are internationally aligned to enable portability of architectural qualifications internationally. The accreditation visit was focused on the evaluation of *Diploma in Architectural Technology, Advance Diploma in Architectural Design and Advance Diploma in Architectural Technology*.

4. SACAP Criteria for Evaluation

4.1 During the accreditation visit, SACAP evaluates architectural qualifications to ensure alignment with the educational standards. The accreditation visit evaluates the standard of achievement and the competence of graduates. The priority of SACAP is to benchmark architectural qualifications against the SACAP competencies as the main criteria for evaluation. To this end, all accreditation documentation prepared by an ALS should identify how the SACAP competencies are being met within the curriculum, pedagogic approach, and assessment practices of the ALS.

4.2 When the AB reviews the work of students, the lowest qualifying standards for graduation are of great concern. The ALS should respond to accreditation criteria which focuses on the ALS's ability to deliver architectural qualifications. This includes, but is not limited to the quality, relevance of teaching and learning design, research, the nature of the ALS learning environment and the extent of available resources for both staff and students. These aspects are set out on the evaluation matrix and the subject/module/unit review template.

5. Members of the Accreditation Board

The SACAP Accreditation Board consisted of Mr Charles Nduku (AB Chairperson), Dr Viloshin Govender (AB member), Ms Magdalena Cloete (AB member), Ms Tanzeem Razak (AB observing member), Ms Nomagugu Manci (AB member), Mr Keith Coltman (AB member), Ms Meltonia Chiloane (CBE observer) and Mr Mzwakhe Hlatshwayo (SACAP secretariat).

6. NMU South Campus Department of Architecture Report

6.1 The programme for the Architectural Technology was created during the late 1970s in the Building Department at the then Port Elizabeth Technikon. Since then, there has been a substantial growth in student enrolments and the expansion of the course content. To date, the programme remains a strong programme within the School of Architecture, falling under the Faculty of Engineering, the Built Environment and Technology. The SACAP Accreditation visit of 2014 raised concerns regarding: the staff/student ratio, contract staff, transformation, workload, vision, horizontal integration, design and theory, and computer applications.

6.2 Following the 2014 Accreditation visit, the Department created an extra post, which helped reduce workload/pressure in the programme. Moreover, the transformation agenda is at the centre of the University's 2030 Vision - "*Humanising Student-Centric Approach.*"

6.3 The Department has made a considerable effort in helping struggling students to improve its demographic profile. This has helped in maintaining the Vision of the Department, which is "*To provide quality engaged facilitation of learning to ALL students, the profession, and the Eastern Cape Community at large.*" In actualising the vision, the Department provided a diverse range of life-changing educational experiences with Innovative modes of teaching and learning, such as the hybrid mode of teaching and learning; promote quality, excellence and academic integrity among staff and student.

6.4 In addressing the Departments strengths and weaknesses, *the staff-student ratio within the Department is currently at a level that is well below the norm compared to other Departments, particularly within first year, which acts as a critical bridge between secondary education and the architectural profession and plays a fundamentally important role in relation to facilitating access for South Africans from disadvantaged educational backgrounds. The recruitment of at least one but ideally*

two additional, full-time staff members is critical. The Department was allocated one additional post. Unfortunately, this new addition did not make a considerable difference to teaching and learning, because most of the staff teach across both programmes, namely Interior Design and Architectural Technology.

6.5 The Department has motivated for extra contract funding for the past couple of years. This helped in employing more students' assistants, as well as professionals to assist with modules linked to current developments in professional practices. Thus far, the Department currently has 7 (seven) permanent posts for the Architectural Technology Programme and more part-time staff members. The current HoS and the Executive have presented a strategy to deal with this matter to ensure effectiveness within the Department.

6.6 On transformation matters, the Department has made considerable efforts to help struggling students and to improve the students' demographic profile. This is in fact part of the University 2030 Vision. The admission process is very thorough and centred on the directive from the Deputy Vice Chancellor Academic to cap the first-year student intake at 55 students, owing to the extreme pressure on the facilities. Student selection is based solely on assessment of capacity and capability, allowing gender and race.

6.7 Due to the workload pressure on the full-time staff, the ALS has developed strategies for dealing with underperforming students. On top of providing senior students assistants as mentors to the first- and second-years students, they are also in direct contact with the Student Success Coach programme, linked to the University Learning Development directorate. Although the graduate cohort numbers are still not in favour of students from disadvantage backgrounds, the ALS must further investigate the throughput and address this.

7. NMU Facilities Report

A brief synopsis of the facilities and resources available to the Department of Architectural Technology & Interior Design at the Nelson Mandela University, Gqebeqa.



Photo 1: NMU facilities

7.1 The inspection of the facilities at the Nelson Mandela University School of Architecture – Department of Architectural Technology & Interior Design took place on 17 April 2023. The NMU School of Architecture is situated on the second floor of the main library on the South Campus of the University.

7.2 The Department of Architectural Technology and Interior Design and the Department of Architecture students share the facilities. Access to the facility is through the main entrance situated on the basement level on the south elevation of the library building. This report will specifically deal with the section of the floor that is occupied by the architectural technology students as well as some of the common areas shared with the architecture design students.

Transport:

The student car park is situated close to the entrance of the school. There are sufficient parking

bays to accommodate the students. Some students access the campus via public transport, mainly in the form of buses, minibus taxis and Uber. The public transport route enters the campus, ensuring that students never have to walk extreme distances to get to class. The architecture school is situated about 150m from the public transport drop-off zone, Uber can drop or pick a student up right at the front door of the school.

Access to the building:

7.3 The basement entrance door opens into a large foyer space with lecture rooms, two lifts and access to the staircase can be found. This entrance is universally accessible with a ramp allowing comfortable wheelchair access. There are also some ablution facilities off this foyer, however, the signage does not indicate a universally accessible ablution facility. This could and should be easily remedied as soon as possible. Access to the school is 24/7. The basement door remains open all the time. Two lifts or a staircase takes the students to the second floor where the school is situated. Off the lift/stair foyer on the second floor is the access-controlled entrance to the main venue. Students and staff access is controlled by a security card system.

Security:

The first line of the security is at the main entrances to the campus. Access to the second floor of the school of architecture is card controlled. The parking area is not well lit at night. Campus security, however, do night patrols of this zone.

General overview of the facilities on the second floor:

7.4 The main entrance on the second floor opens a foyer beyond a circulation passage. Off this passage is the office of two reception personnel who welcome visitors as well as manages the secretarial functions of the school. The foyer is quite large and serves as an afterhours / special function space and a student exhibition area. The main passage to the left takes the student to the computer labs, a small stationery shop (Data Centre), printing room and generally, the space is occupied by the architectural technology students. The lecture facilities for these students are open plan in nature with only pinning wall divisions.

7.5 Four large spaces exist for this function. Each of these is equipped with all the necessary electronic aids, such as overhead projectors e.g., to facilitate teaching. The equipment is mostly Bluetooth enabled which mean that students can connect via their personal devices. Seating in these venues sufficiently accommodate the

current number of students. An open plan model encourages interaction and integration amongst the different level students. Access to the architecture design section is also easily facilitated with doors that generally remain open between the two groups.

7.6 Some of the facilities are also shared with the interior design section. Natural lighting levels on the western side of the building is not the best and needs to be complimented by electrical lighting. The student work exhibition wall panels will need a better light source as it is generally not well lit. Natural ventilation is however sufficient as the windows are accessible and openable.

7.7 Two large computer labs are shared by all the students on the floor. These facilities are generally insufficient for the number of students and some have to reside to using personal laptops in this space.

7.8 The Senior Technology students have a lab / workspace dedicated to them. This space accommodates sufficiently this group. Included in here is a pause area for their use. This includes a microwave, mini fridge, and coffee station. The printing for the floor is shared by all and is not very large. This leads to some congestion during submission dates but the school is moving towards more digital submissions. Expensive printing of documents is therefore mitigated. A small on-site stationery shop facilitates the students access to stationery and model building materials and equipment. This facility also houses a small library of architecture books which the students have full access to while the shop is open daily.

Workshop areas:

7.9 The studio space doubles as a model building space. Some workstations along the west ribbon windows allow for individual student workspace. These are limited and are generally granted to the students on a first-come, first-served basis. Each one of these includes a locker where the student can securely keep personal belongings. No formal workshop exists, and expensive model building equipment (laser cutter etc.) obtained by the school is kept off-site on the north campus. No confirmation was given as to whether the students had full access to this equipment.

Other facilities:

Lecturer workspaces:

7.10 The lecturer's offices are situated on a mezzanine level above the main studio space. These offices both accommodate Technology and Design lecturers. These are accessible by staircase only and open to students. Therefore, access to the lecturers is facilitated, and students are encouraged to knock on the door of the lecturer's office if required. This floor accommodates some storage spaces as well as a boardroom where, at times, smaller group sessions are held with students.

Receptionist area:

7.11 The students have full access to this centrally positioned space where local student administration, recruitment and support are provided by permanently appointed staff members.

Cafeteria:

7.12 The main campus cafeteria is situated about 50m from the main basement entrance of the school. This facility is, however, only available for limited hours daily. The school does not provide any chill or pause areas for the students besides a small coffee station. This also includes a microwave oven, a mini fridge, and some cupboard space. All students on the floor utilize this facility. There is a general lack of recreation or break-away spaces for the students.

Library:

7.13 The campus Main Library access is via student card and library operating hours are from Monday to Thursday: 08h00 to 22h00, Friday: 09h00 to 20h00, Saturday: 0h00 to 15h00 and Sunday: 14h00 to 18h00. Students can access some study space in the library at any time daily. The architecture section of the library is well-appointed and online access to all material, including journals, is facilitated via the website.

Ablution Facilities:

7.14 The ablution facilities on the floor generally seem to be inadequate for the number of student and staff on the floor. There are no universally accessible ablution facilities on this floor. There are some toilet facilities situated on the basement floor close to the main entrance. There is a universally accessible toilet there as well which does not have signage.

Lecture rooms in the basement:

- 7.15 Off the main entrance foyer at this level exists 4 (four) lecture facilities. 2 (two) of these are allocated and used by the Architecture Department. The other 2 (two) are shared with the rest of the campus. One of the two used by the department is currently exclusively used as a storeroom for model documentation.

Other Challenges noted:

- 7.16 Power outlets – power skirtings generally follow the perimeter walls defining the studio spaces. There is, however, a challenge to get power to the individual desks in the middle of these spaces. There are no individual lockers provided for the students to use as safe storage daily. However, there are some drawer lockers that allow for some storage of smaller items, such as rolled-up drawings etc.

Conclusion:

- 7.17 The facilities are well-located and accessible to the students. The environment lends itself well to the creative nature of the course. The growth of the school and the provision of much-needed spaces for e.g., a workshop and student recreation facilities, are limited by the existing space constraints of the building. The facility functions well given all the challenges noted and could effectively be improved if some of these challenges are addressed.

8. Accreditation Documents

The evidence documents were timeously received and easily distributed to the AB members. The information on the files was well organised, concise, and clearly presented in links with PDF files labelled accordingly. The self-assessment or evaluation report provided a strategic view of the ALS, a well-structured curriculum review, student assessment portfolios, and samples of moderation reports. Moreover, there was a presentation by the Head of Department (HoD) to support the information provided in the digital files.

9. Report from the Head of Department: Mr Tonga Hyacinthe

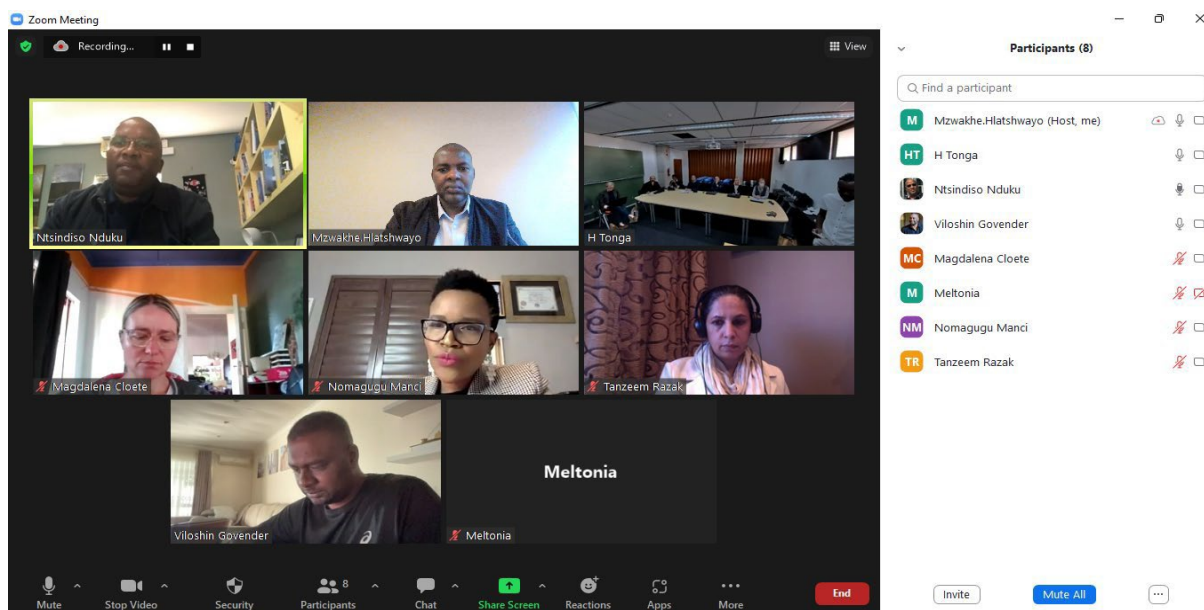


Photo 2: AB members meeting with management

9.1 Mr Tonga Hyacinthe presented a clear vision of the ALS, including the immediate and future plans to develop the Department. In his presentation, he mentioned staff shortage as a weakness which requires urgent attention. The shortage of staff has negative implications towards the allocation of courses. This means that too many courses are distributed amongst part-time lectures; as a result, the AB noticed that there is too much fragmentation within the courses. Hence, a suggestion from the AB, is that an integrated approach towards curriculum is required.

9.2 Moreover, the AB noted that the staff is still predominantly white. This observation is against the SACAP protocols, including affirmative action policies. A suggestion is that the Department should reconsider appointing black females as lecturers to promote transformation. In addition, more permanent positions should be created to curb the staff-student ratio, which is 1: 35 to 1: 40 at most in studio courses. The future of the

Department still looks bright, as presented by the HoD but the AB hope for more implementation in the future or the next five years.

10. Interviews between the AB and the students

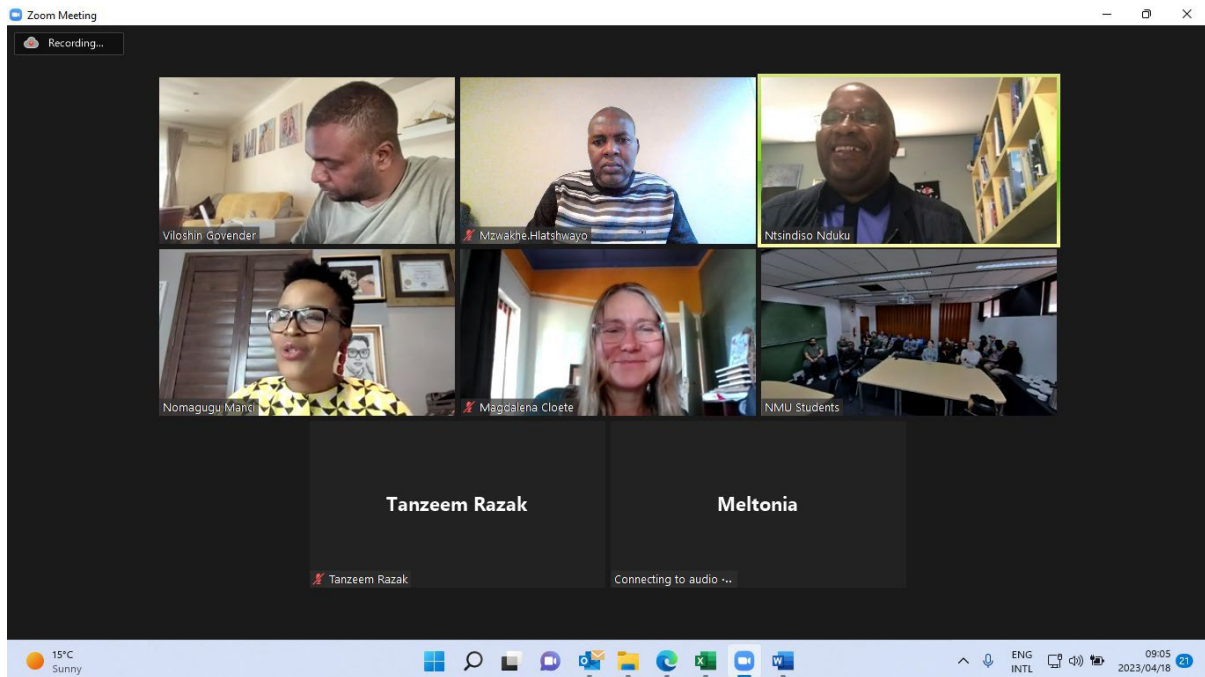


Photo 3: AB meeting students

10.1 Only 16 (sixteen) students from the first-year to the Advance Diploma were made available for the meeting. The students cited satisfaction regarding the quality of teaching time except for individual crit time. During crits, the teacher-to-student ratio is 1: 40, which presents challenges. Amongst the challenges is a lack of individual attention, making student architectural development and creativity suffer. More so, insufficient training in computer software, such as Revit, deprives students of access to better experiential work opportunities. The AB promised the students to recommend training in this software in the Work-Integrated Learning module and in computer courses.

10.2 The AB indicated that the Department should have accordingly informed students of the visit and allocated a slot to respect the accreditation visit and present a balanced or inclusive representation of students. The AB appreciated the student contribution and time spent to echo their challenges.

11. The AB meeting with External Moderators

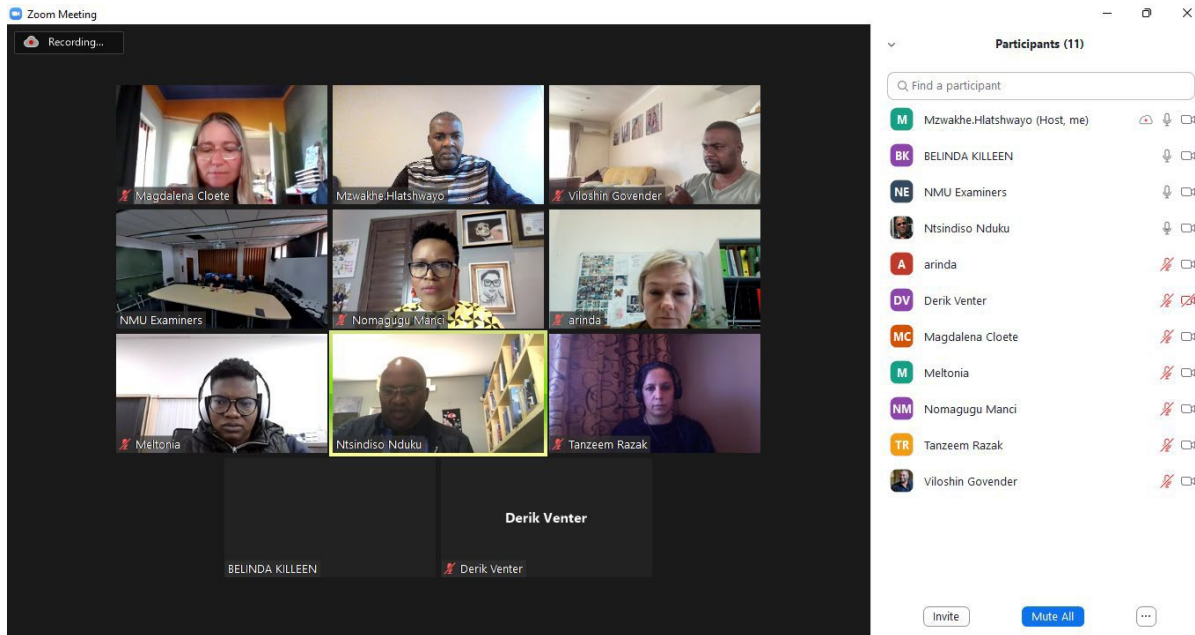


Photo 4: AB meeting with External Moderators

11.1 The external moderators for the Architectural Technology and Design modules cited concerns around the lack of site analysis from lectures. The lack of site analysis resulted in poor design of projects and this problem is compounded by the lack of proper guidelines to follow. Although students are taught how to think, draw, interpret building details and materials techniques around our National Building standard and the South African National Standard 10400. The ALS should ensure that ALL design and studio modules still reflect a deeper understanding of the NBR and SANS 10400.

11.2 Although there are moderation tools used by external moderators, formal moderation report could not be found for all modules presented to the AB. Some moderators seem unclear on the moderation process when asked to describe the moderation procedure. The Department must attempt to appoint moderators who are subject specialists to improve the quality of moderation.

12. The AB interviewing the academic teaching staff

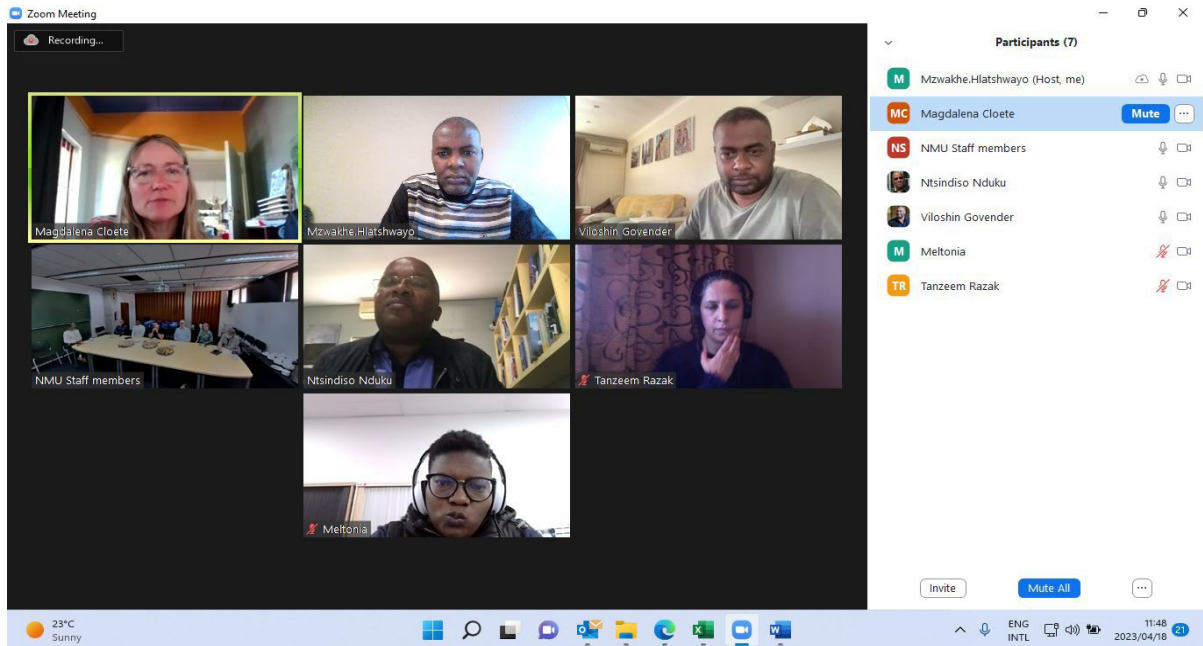


Photo 5: AB interview with academic teaching staff

12.1 There were six (6) white academic teaching staff and one (1) black academic teaching staff interviewed by the AB. This observation was a concern as there was only one (1) black staff member represented amongst the teaching staff. During the interview, the AB further noted that one experienced teaching staff member used to be a director at the school, a position now held by Mr Boban Varghese. It was not clear if this provided an opportunity for mentoring the current HoD.

12.2 An external teaching staff member (contract staff) is responsible for helping permanent staff with their workload. In a major module, there are about seven (7) projects undertaken per year including an examination which is more than required for the curriculum design and notional hours. The AB further noted the positive shift in staff collaboration and efforts to embark on research to advance the objectives of the Department.

13. Review of courses

Diploma in Architectural Technology (YEAR 1)

Applied Building Science I (DBS 1001 & 1002)

13.1 The year one modules provide foundational knowledge and skills related to building structures and services. Some basic environmental design concepts are covered. It is not clear from the files if the knowledge is integrated into the design projects. Limited focus on environmental sustainability can be found. Semester 1 - basic maths, then structural principles and calculations. Semester 2 – environmental science as applied to buildings – climatic responsive design; electrical layouts; lighting in buildings; Sound – acoustics etc; Security. Lectures are used to introduce theoretical contents and tutorials provide the application of knowledge by students. Guest lectures and visits to manufacturers are also provided to enrich the content.

Computer Applications I (DKP 1001 & 1002)

13.2 The course objectives are very clear and concise. The course forms a good basic starting point to computer literacy and competency. The introduction to the basic skills set for computer applications is appropriate with the intensity of course material increasing as students get to the next module. This results in the students being constructively built up to the following years of study.

13.3 More computer stations need to be allocated given the high number of students and the work load these students have. In addition, the department should offer more tutorials or after-hours sessions for improving these skills set as it is critical in the working environments that they will be going into. The culture of copy and paste still needs to be monitored closely however, the more tutorials exist the less the need for this element to creep in. These issues should be addressed by the next periodic accreditation visit.

Construction and Detailing I (DKD 1001 & 1002)

13.4 This is the subject which is at the core of determining the technological aspect of architecture and the focus is not at a level of producing special graduates who will advance the evolution in construction technology which is centred around the discovery of new materials and methods of construction which are future proofed for the next 50 years. The focus is not based on critical thinking and engagement on challenging current materials and methods which have been in the market for years and are now less responsive to current technological needs.

13.5 We are mindful of the influential cost of labour as a cost driver during the construction, but the ALS keeps on producing graduates that are just consumers of readily available materials and construction methods. The horizontal integration is not very clear and well-structured to position the subject as the main bases for the entire technology programme. The design theory should be anchored on construction detailing as an entry point, but the focus is more on the design theory as a primary focus supported by detailing. The integration with Building Structures competency of knowing basic structural concept is not clearly integrated to construction and detailing. The evidence provided indicate that 1st year and 2nd year are not given enough attention as a base for a third year, which brings to question the vertical integration. These issues should be addressed by the next periodic accreditation visit.

History of Architecture and Design I (DHA 1001 & 1002)

13.6 The module's scope includes an overview of the complete known history of architecture, this could be challenging to first year students; especially as the combined credit for the modules is 10. This relates to 100 notional hours for the year. The time and scope may not enable meaningful depth of understanding of the module. History is also only offered in year 1 and again at the advanced diploma level. A better approach to the module should be proposed and addressed by the next periodic accreditation visit.

13.7 The first assignment considers the students' own history; this is an effective assignment in the first year. But the student is also required to write their design philosophy and style. This is a concern as a first-year student will not be able to have this position as a design philosophy should be established over many years of study. The term style is outdated as one rather refers to period or movement. And separately considers architectural language. These issues should be addressed by the next periodic accreditation visit.

13.8 The student evaluation indicates a generally negative attitude to the module. This observation reflects the concern about the scope of the module and highlight the need for more staff to be appointed. This issue should be addressed by the next periodic accreditation visit.

Introduction to Design Theory I (DHA 1001 & 1002)

- 13.9 The content introduces presentation methods and then moves to the introduction of theory with relevant references to Ching and Alexander and a small component relating to environmentally sustainable design principles. The focus of the module tends to be on how to do hand sketches and how to design. The content is limiting as the concepts of Place, and Dwelling would be well suited to this level of study. These issues should be addressed by the next periodic accreditation visit.
- 13.10 The assignment example shows one precedent study per semester. It seems all the students analyse the same building, designed by Glen Murcutt. Allowing students to select from a group of precedents should be encouraged with provision for students to present to peers. This will enable engagement among students and afford peer learning. The potential of smaller assignments as part of the teaching and learning strategy should be explored. The course programme document indicates that the assignments are aligned with design projects. These issues should be addressed by the next periodic accreditation visit.

Studio Work I (DSW 1001 & 1002)

- 13.11 Books such as Neufert (architects' data) and Andre Grobbelaar (building graphics standards) are not prescribed; this would go a long way to help students. Please relook at the reading list and materials for students. The drawing lists given to students are well-prescribed. The course also equips students with municipal submissions, which is appreciated. These issues should be addressed by the next periodic accreditation visit.

Presentation Methods I (DAP 1001)

- 13.12 This is a very good course that teaches students skills that they require throughout their study. This is a course that perhaps needs to be continued into semester 1 of the second year of study given the skills set required by the students and the short resources in staffing that exists as a common complaint throughout. Architecture involves being able to communicate clearly and graphically and this is very important to the success of any student taking on this programme. Given the disadvantaged

backgrounds that some of these students are coming from, more effort should be made in these courses in order to effectively upskill the learners.

Survey and Landscaping III (YEAR 2)

Services II (DBD 3001 & 3002)

13.13 The scope of the modules is appropriate to the level of study and provides a good understanding of structure and services. There is limited evidence of environmental sustainability in the content. Alternative technologies and indigenous knowledge systems could be explored. Lectures are used to introduce theoretical contents and tutorials provide the application of knowledge by students. Guest lectures and visits to manufacturers are also provided to enrich the content.

13.14 This is the subject which is at the core of determining the technological aspect of architecture and the focus is not at a level of producing special graduates who will advance the evolution in construction technology which is centred around the discovery of new materials and methods of construction which are future proofed for the next 50 years. The focus is not based on critical thinking and engagement on challenging current materials and methods which have been in the market for years and are now less responsive to current technological needs.

The integration with Building Structures competency of knowing basic structural concept is not clearly integrated to construction and detailing. The evidence provided could indicate that 1st year and 2nd year are not given enough attention as a base for a third year, which brings to question the vertical integration. These issues should be addressed by the next periodic accreditation visit.

Construction and Detailing II (DKD 2001 & 2002)

- 13.15 It is at this stage of the module where the fundamentals of construction detailing should be introduced to the students. The approach should be to start introducing students to materials, starting from breaking down the composite elements, analyse properties and material behaviour as individual elements and complete the process by assessing the behaviour of elements when they are assembled together.
- 13.16 This approach will unleash students to the culture of materials research with the objective of influencing entrepreneurial skills to design new and alternative materials and become future industrialists rather than consumers of readily available materials. This study could lead to identification of materials that are energy efficient, materials that require no additional finishes which reduces the amount of embodied energy. This will help students write proper specifications and lay a good foundation for using building materials in the right combination. Lastly, the understanding of material properties will lead to the use of materials with low embodied energy.
- 13.17 The Department must pay attention to Green Building guidelines which will help graduates specify materials which reduces carbon footprint. The module should start introducing students to methods and material assembly as the bases for low to medium complex detailing.
- 13.18 The horizontal integration of the module within the entire technology programme is not very clear. The design theory module should be well anchored to construction detailing as an entry point. This should be addressed by the next periodic accreditation visit.

Office Management Practice II (DOP 3001 & 3002)

- 13.19 A need was raised in previous report for the second-year lectures to make use of more up to date material related to building contracts and that there was also a need for a comprehensive SACAP handbook which would reflect all the requirements to be known by students. This is still something that needs to be worked on by the ALS. The course is aligned to SACAP competencies and provides full understanding of office practice and contract management required for students before they exit their courses.

13.20 There is visible progression within the courses in the consistent teaching of the responsibilities of an architectural professional and practise organisation and contract management. These courses will help students to improve skills set that they need in the work environment, especially when it comes to a skill required of handling stage 5 of the project which is often found lacking. The assessments are relevant to the module content and the marking seems appropriate and in line with their marking matrices. There seems to be adequate resources and facilities for the above course.

Design II (DPA 3011 & 3002)

13.21 Module reports from the external examiners have no comments. This is of concern as there was no quality control. DPA 3011/3002 does not show integration with the theory modules. Concepts such as tectonics are not shown in design projects. Generally, the progression (horizontally) from the first year to the second year is weak. The projects start from the house level (individual) to civic (public building). This should be gradually led to and not such a drastic jump. This should be addressed by the next periodic accreditation visit.

Design Theory II (DPA 3001)

13.22 The outcomes and content of the module is commendable as it positions the architectural thinking in relation to people. The range of concepts and the readings list is broad and appropriate. The module is limited by including a single group assignment for the whole semester. The task has a general architectural analysis focus lacking the depth embedded in the content described in the study guide. The potential of smaller assignments as part of the teaching and learning strategy should be explored. This should be addressed by the next periodic accreditation visit.

13.23 The semester planning indicates that the module is integrated with the design module. The course programme document indicates that the assignments are aligned with design projects. Whilst Theory 2 deals with tectonics, and the assignments focuses on this analysis, the module may need to properly ground tectonic exercises in the second-year design studio.

13.24 It is a concern that there is no dedicated Theory module included in the year 3 of the Diploma programme. This was one of the modules that was reviewed which included a sample of lecture notes. The notes seem to be in-line with the module

content and combined visuals of architectural examples of the concepts being discussed. This is an appropriate style of teaching, specifically at this academic level.

Studio Work II (DSW 2001 & 2002)

13.25 Books such as Neubert (architects' data) and Andre Grobbelaar (building graphics standards) are not prescribed; these readings would assist students. The reading list and materials for students needs to be revised. The drawing lists given to students are well-prescribed. The course also equips students with municipal submissions, which is appreciated. This should be addressed by the next periodic accreditation visit.

Environmental Design II (DBD 3030)

13.26 The scope of the modules is appropriate to the level of study and provides a good understanding of structure and services. There was limited evidence of environmental sustainability in the content. Alternative technologies and indigenous knowledge systems are not explored.

Communication 1 (LKM 1001)

13.27 This was generally a very good course that teaches students skills that they require throughout their study. It is recommended that this course is continued to at least the semester 1 of the second year of study. Given the student demographic profile and the challenges related to specifically language experienced by many students it would serve the ALS well to look into this. Architecture involves being able to communicate clearly and graphically and this is very important to the success of any student taking on this programme. Given the disadvantaged backgrounds that these students are coming from, significant effort should be made in this course to upskill the learners.

Computer Aided Drafting II (DAD 3001)

13.28 The course aims to provide students with theoretical knowledge as well as CAD proficiency which they have achieved to a large extent. The effort applied in the

inclusion of the BIM into their course material needs to be applauded. Students are generally equipped to be able to add value to the offices they would be employed in.

13.29 Presentation quality could still be improved if more staff is made available to spend more time with the students. It is evident that the students grasp this course and are enthusiastic about it given the outcomes from the assessments viewed. The students seem able to communicate design ideas and technical detailing using selected programmes quite well. A suggestion for more computer stations is valid and attention needs to be given to this inclusive of additional tutorials or lessons to train students on use of different programmes.

Practical Studies II (DPS 2002)

Construction and Detailing III (DKD 3001) (YEAR 3)

13.30 At this stage of the module, the student should be given exercises which encourage them to demonstrate and implement what they learnt in the first and second year. The focus should be maintained on intense material assembly and complex detailing.

13.31 This is the subject which is at the core of determining the technological aspect of architecture and producing special graduates who will advance the evolution in construction technology which is centred around the discovery of new materials and methods of construction which are future proofed for the next 50 years. The focus could be based engagement on challenging current materials and methods which have been in the market for years and are now less responsive to current technological needs.

13.32 The Studio design is anchored on construction detailing as an entry point but could be seen as if the focus is more on the design theory as a primary focus supported by detailing. The evidence provided indicate that first year and second year are not strong enough to be used as a base for a third year, which shows a weaker vertical integration. This should be addressed by the next periodic accreditation visit.

Studio Work III (DSW 3001)

13.33 Books such as Neubert (architects' data) and Andre Grobbelaar (building graphics standards) are not prescribed; these readings would assist students. The reading list and materials for students needs to be revised. The drawing lists given to students are well-prescribed. The course also equips students with municipal submissions, which is appreciated. The evidence provided indicate that first year and second year are not strong enough to be used as a base for a third year, which shows a weaker vertical integration. This should be addressed by the next periodic accreditation visit.

Office Practice III (DOP 3131)

13.34 A need was raised in the previous SACAP accreditation report for the second-year lecturers to make use of more up to date material related to building contracts and that there was also a need for a comprehensive SACAP handbook which would reflect all of the requirements to be known by students. The course is aligned to SACAP competencies and provides full understanding of office practice and contract management required for students before they exit their courses.

13.35 There was a visible progression within the courses in the consistent teaching of the responsibilities of an architectural professional and practise organisation and contract management. These courses will help students to improve their skills set that they need in the work environment, especially when it comes to a skill of handling stage 5 of the project which is often found lacking. The assessments are relevant to the module content and the marking seems is appropriate and in line with their marking matrices. There seems to be adequate resources and facilities for the above course.

Architectural Technology Practice III (In -service training) – (DAT 3012)

Advance Diploma in Architectural Design Design (AADA 400)

13.36 Module reports from external examiners have no comments. This was a concern as there is no quality control. Seven (7) projects are given as an option to students, this is welcomed however, there needs to be a stronger social objective in the brief structuring. The aim of the course needs to be interrogated; was the purpose for this to upskill students? What are the students bringing from the undergraduate teachings? This should be addressed by the next periodic accreditation visit.

History of Architecture and Arts (AAHA 400)

13.37 The module is offered as part of the BAS third year programme. The outcomes and content are appropriate to the level of study. The module includes a series of lectures which misses an opportunity for student-centred approaches. There was no evidence of how the History module integrates with the Design and Theory module or how it related to previous years. It was also noted that the content tends to lean towards a theoretical focus. This approach makes the content of history more accessible, but the programme included a separate Theory module. This should be addressed by the next periodic accreditation visit.

13.38 The evidence provided was only for 2020 and 2021 and there was nothing provided for 2022. The examples provided were not categorised as high, middle, and low pass rates as it is required. The expectations of the assignments seem limited in relation to an NQF level 7 module. The total word count of the essay is 600 words, and the poster has a more graphic focus. The assignments provide critical thinking, but the number of assessments and the scope of assignments was limited. At this level, academic writing skills should be developed through longer writing tasks and a focus on developing rigour in terms of references.

13.39 The examples of work had no marked matrix to indicate how an assignment was assessed, and in most instances, no mark was provided. The external moderator provided a detailed report with comments on improvements included from the year before. This was the only module to include a module review, however, there were no comments from the lecturer. This should be addressed by the next periodic accreditation visit.

Architectural Theory (AATA 400)

13.40 The module is offered as part of the BAS third year programme. There needs to be clarification on the curriculum design and outcomes of the modules. It is essential to

consider overall alignment and how this offering aligns with other modules in the programme and the vertical progression from the three-year diploma to the advanced diploma.

13.41 The outcomes and content are appropriate for the NQF level 7. The module includes a series of lectures and seminars towards the end of the year. However, the module assessment strategy was not clearly aligned with the criteria of NQF level 7. There was no evidence of how the Theory module integrated with the Design and History module.

13.42 The position paper at the start of the year is concerning as students at this level of study are not able to limit themselves to a specific philosophy for their architectural approach. Students also indicated in their feedback that they do not have the depth of understanding to position themselves. This should be addressed by the next periodic accreditation visit.

13.43 The evidence provided was only for 2022 and inconsistent as some provided high, middle, and low passes whilst other examples provided were the highest failure, lowest pass. The examples of work provided had no marked matrix to indicate how an assignment was assessed, and no mark was provided. This should be addressed by the next periodic accreditation visit.

Principles of Urban Design (APUA 400)

13.44 Urban design solutions need to be implemented. Different scales should be emphasized; Macro, Meso, Micro in this module. The Urban contexts should deal with strong social issues. There was a failure to show progression from the APUA 400/ AADA400 modules in the advanced diploma to the honours in Architecture.

13.45 There was a lack of new technologies noted for this module, for example, laser cutters/ 3D printers for the students to use. Software is also lacking for students at the first and second-year levels, it is recommended to introduce ArcGIS and urban design software.

Advanced Computer Applications (ACA 400)

13.46 The course objectives are very clear and concise. The courses form a basic starting point for computer literacy and competency. The introduction to the basic skills set for

computer applications is appropriate with the intensity of course material increasing as students get to the next module. This results in the students being constructively equipped for the next years of study.

13.47 The Department must avail more computer stations given the high number of students and the workload these students have. The Department must offer more tutorials or after-hours sessions for improving these skills as it is critical in the working environment. The culture of copy and paste still needs to be monitored closely however the more tutorials exist the less the need for this element to creep in.

Advance Diploma in Architectural Technology
Construction and Detailing IV (ACDA 400)

13.48 The ALS may consider having the module marking rubric designed towards awarding more marks to student who demonstrates innovation and creativity in detailing. Students are presented various case studies (at high complexity level), learn various materials, techniques and details which can then be used to guide/ generate their design in ASWA400. There could be an opportunity for their syllabus to provide a framework for students who are self-reliant in material choice and application of methods at a level of high complexity. The student knowledge gained from first to third year should be demonstrated as a base to innovation capabilities. The connection between the Diploma and the Advance Diploma needs further improvement. The course also equips students with municipal submissions, which is appreciated.

Studio Work IV (ASWA 400)

13.49 Books such as Neubert (architects' data) and Andre Grobbelaar (building graphics standards) are not prescribed; these readings would assist students. The reading list and materials for students needs to be revised. The drawing lists given to students are well-prescribed. The student knowledge gained from first to third year should be demonstrated as a base to innovation capabilities. The connection between the Diploma and the Advance Diploma needs further improvement. The course also equips students with municipal submissions, which is appreciated

Principles of Urban Design IV (APUA 400)

13.50 Urban design solutions should be implemented. Different scales should be emphasized; macro, meso, micro. Urban contexts should deal with strong social issues. There is a failure to progress from the APUA 400/ AADA400 Course from the advanced diploma to the honours in Architecture. Students in Advanced Diploma in Design are already linked to 3rd year Architectural studies level in order to access the Honours program. This is evidence to a vertical integration.

13.51 There is a lack of new technologies, for example, laser cutters/ 3D printers, available for the students to use. Software is also lacking for students at the first and

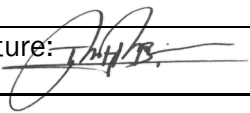

second-year levels. It is recommended that ArcGIS and urban design software be introduced.

Advanced Computer Applications (AACA 400)

13.52 The course objectives were very clear and concise. The course forms a basic starting point to computer literacy and competency. The introduction to the basic skills set for computer applications is appropriate with the intensity of course material increasing as students get to the next module. This results in the students being constructively built up to the followings years of study. The Department must offer more tutorials or after-hours sessions for improving these skills set as it is critical in the working environments that they will be going into.

14. Conclusion

The Council appreciates the collaboration of the ALS during the accreditation visit. Notwithstanding that the quality of the three architectural programmes is good, more work still must be done to meet the standard required by SACAP. The AB will undertake another review to evaluate whether there has been any improvement on all the issues identified in the report. The ALS is granted unconditional accreditation subject to attending to all the issues raised in the report being addressed in the next 24 months.

| | |
|--|---|
| NMU South Campus Head of School: Mr Tonga Hyacinthe | SACAP AB Chairperson: Mr Charles Nduku |
| Date: 10th July 2023 | Date: 10th July 2023 |
| Signature:  | Signature:  |

14. Annexures

Annexure A: SACAP Competencies

The competencies are aligned with the identification of work matrix. The matrix is based on the complexity of the project, and the sensitivity of the context and site.

| | | SITE SENSITIVITY | | |
|--------------------|--------|------------------|--------|------|
| | | LOW | MEDIUM | HIGH |
| PROJECT COMPLEXITY | LOW | PrArchDraught | | |
| | | PrArchT | | |
| | | PrSArchT | | |
| | | PrArch | | |
| | MEDIUM | PrArchT | | |
| | | PrSArchT | | |
| | | PrArch | | |
| | HIGH | PrSArchT | | |

Annexure B: Curriculum Overview

| National Diploma in Architectural Technology | | | Advanced Diploma in Architectural Technology | Advanced Diploma in Architectural Design |
|--|------------------------------------|---------------------------------------|--|--|
| Year 1 | Year 2 | Year 3 | Year 1 | Year 1 |
| Design I - Module I & II | Computer Aided Drafting III | Architectural Technology Practice III | Advanced Computer Applications IV | Design IV |
| Applied Building Science I - Module I & II | Services Module II - Module I & II | Construction and Detailing III | Construction and Detailing IV | History of Architecture and Art iv |

| | | | | |
|--|---|---------------------|-------------------------------|-----------------------------------|
| History of Architecture & Design - Module I & II | Environmental Design III | Office Practice III | Principles Of Urban Design IV | Architectural Theory IV |
| Introduction To Design Theory - Module I & II | Construction And Detailing II - Module I & II | Studio Work III | Studio Work IV | Principles of Urban Design IV |
| Construction And Detailing I - Module I & II | Office management Practice II - Module I & II | | | Advanced Computer Applications IV |
| Computer applications I - Module I & II | Design Theory III | | | |
| Survey and Landscaping III | Design II - Module I & II | | | |
| Studio Work I - Module I & II | Studio Work II - Module I & II | | | |
| | Communication I | | | |

Annexure C: Validation Board Schedule

17 – 19 April 2023

| NELSON MANDELA UNIVERSITY | | |
|--|--|-----------------------------|
| DEPARTMENT OF ARCHITECTURAL TECHNOLOGY&INTERIOR DESIGN | | |
| TIME | ACTIVITY | PERSONS/INVOLVED |
| to be confirm | Pre-meeting of the validation Board (AB) to discuss inspection (chairperson appointed by SACAP to preside) | AB |
| Day One _ 17 April 2023 | | |
| 08:00 - 08:15 | Introduction by AB Chairperson of Board Members and by the HoD of ALS of staff members online | AB, HoS, all staff |
| 08:15 - 09:45 | Presentation 1 Summative self -appraisal by HoD: Architectural Technology & Interior Design. Requirements in Appendix C Presentation 2 by staff of the Department of the outline of the academic programme. Requirements in Appendix C | AB, HoS, all academic staff |
| 09:45 - 10:00 | Tea Break | |
| 10:00 - 10:30 | Private meeting with HoS and DoS | AB, HoS, DoS |
| 10:30 - 12:30 | Members of the AB divide their time between inspection of subject files, portfolios, and other exhibited work. | AB |
| 12:30 - 13:30 | Lunch (staff and physical AB lunch in the department) | |
| 13:30 - 17:00 | Members of the AB divide their time between inspection of subject files, portfolios, and other exhibited work. On site: Visits workshops, library, studio, computer facilities and informal discussion with staff and students on the floor | AB , HoS, DoS |
| Day Two _ 18 April 2023 | | |
| 08:00 - 09:00 | AB reflects on evidence presented and discusses the format of interviews to follow. | AB |
| 09:00 - 10:00 | AB meets with students and graduates | AB, students, graduates |
| 10:00 - 10:30 | Tea Break | |
| 10:30 - 11:30 | AB meets with external examiners and moderators | AB, examiners |
| 11:45 - 13:15 | AB meets with full-time and part-time staff (no HoD) | AB, all staff |
| 12:45 - 13:15 | AB meets Dean EBET | AB, Dean |
| 13:15 - 14:00 | Lunch | |
| 14:00 - 17:00 | Private meeting of the AB to agree on general findings and report content. The AB drafts statement and outline report. | AB |

| | | |
|------------------|--|---|
| | Day Three _ 19 April 2023 | |
| 08:00 - 11:45 | The AB works on the verbal validation statement and draft written validation interim report. AB prepares for meeting with senior management. | AB |
| 12:00 - 13:00 | The AB meets with senior management to convey findings and hand over statement. | AB, VC, DVC, Dean and Deputy Dean |
| 13:00 - 14:00 | Lunch | |
| | | |

| For the SACAP Accreditation Board | | | |
|-----------------------------------|--|-------------------|--------------------------------------|
| Name & Surname | Email | Cell phone Number | Role |
| Ms Nomagugu Mancu | noma@nsmprojects.co.za | 072 910 8844 | AB member |
| Ms Magdalena Cloete | Magdalena.cloete@gmail.com | 084 405 9602 | AB member |
| Mr Charles Nduku | ndukun@nnarch.com | 082 899 4526 | AB member (Chairperson) |
| Dr Viloshin Govender | GovenderV3@ukzn.ac.za | 081 773 2777 | AB member |
| Mr Keith Coltman | keithcoltman@gmail.com | 079 876 7703 | AB member, physical inspection |

| | | | |
|--------------------------|---|--------------|------------------------|
| Mr Mzwakhe Hlatshwayo | Mzwakhe.Hlatshwayo@sacaps a.com | 066 262 2802 | AB Secretary |
| Ms Tanzeem Razaak | tanzeem@lemonpebble.co.za | | AB observing member |
| Ms Meltonia Chiloane | meltonia@cbe.org.za | 079 706 0374 | CBE observer |