

Ubuntu Architecture

Summer Abroad

Listening to build

[Ubuntu Architecture Summer Abroad](#) (UASA) is an intercollegiate virtual educational experience in which students learn a community-centered approach to impacting large communities by designing and building, dignified and culturally-influenced housing for resilient families.



Andrews University students in an apartheid-shaped township in Durban, South Africa (2016). Photo Credit: Troy Homenchuk, Andrew Von Maur, Andrews University School of Architecture & Interior Design

Instructor Contact Information:

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General Course Information:

Course Type: Virtual Vertical Studio (preference given to third-year undergraduate to graduate-level architecture students). Students can take the course as an Independent Study or Elective course.

Course Fee: \$3700

Course Start Date: 11th January 2021

Course Description:

The course intends to,

1. Create a diverse cross-cultural architectural experience for students and communities by working in an environment removed from western architectural philosophies.
2. Educate students in a community-centered design-build approach (listening to build) aimed at impacting larger communities through means of working with key family units.
3. Provide opportunities for students to gain real-world experience through designing and helping build, dignified and culturally-influenced homes for resilient families.

Key Takeaways:

1. **Diversity and Inclusion:** This project will pair a diverse group of students from different backgrounds, with families from communities that have previously been excluded from having access to dignified housing due to apartheid.
2. **Power of Architecture:** Architecture creates the ability to heal or hurt communities; we work tirelessly to intentionally empower and enable healing for those who have suffered from the effects of apartheid and the socio-psychological impacts it has had on their communities.
3. **Cultural humility:** We work with the local community to learn about African architecture from an African perspective.

Intended Student Learning Objectives:

As a result of this course, students will be able to develop/implement culture-informed, sustainable, community-focused architectural knowledge and perspectives, translating them into their own lives and careers. They will be able to:

Understand the power of architecture and how it either hurts or heals

- (1) Students will be able to learn the effects of apartheid on modern-day South African neighborhoods.
- (2) Students will gain a working knowledge of community-informed design.

Learn how to engage communities, to develop contextual, sustainable solutions

- (1) At the end of this course, students will be able to hold successful community engagement/participation charrettes.
- (2) Students will learn the values and tools of how to conduct community-driven design.

(3) Students will be taught how to acclimatize to a new culture in a respectful and effective way that gains trust from the client community.

Introduction to African Architecture

(1) Students will gain knowledge about climate responses and passive sustainable design in the context of African architecture.

(2) Students will be made aware of how culture (political and social) affects how spaces are shaped in South African communities.

(3) Students will be made aware of traditional African urban design considerations by various ethnic groups.

(4) Students will learn about the evolution of African architecture through colonization.

Continuous Learning and Continuing Education Pathways for Professional Development:

Intercultural Relationship and a Global Network of Designers

(1) This program will teach students the ability to work collaboratively with other students from different programs from around the world. This is aimed at fostering diversity of thought, and building meaningful relationships that will last beyond the experience.

(2) Community engagement will enable the students to build a relationship with our beneficiary community.

Introduction to Practical Construction:

Students will:

(1) Learn a working knowledge of bricklaying, being taught by expert local builders.

(2) Gain the working knowledge to put together a construction program outlining each day's activity based on how a building is built.

(3) Gain the working knowledge of how the substructure and roof trusses come together through, constructing the building envelope.

Leadership in Architecture:

Students will engage with lectures and participate in dialogues that tackle topics such as, how to establish mission and vision with a social impact initiative and how to tell stories through architecture that will enable them to be effective leaders in their communities.

Studio Program Summary:

Teaching Strategies

The methods of instruction include assigned readings, lectures, videos, class discussions, panel discussions, virtual site visits, design reviews, and finally building a home. Daily attendance is essential to good performance, as assigned readings complement rather than duplicate, topics covered in-class lectures.

Required Materials:

1. Ubuntu in Umbumbulu Book:
[\[See Dropbox Folder\]](#)
2. Freear, A and Barthel, E (date) *Rural Studio at Twenty: Designing and Building in Hale County, Alabama*. Place of publication: publisher.
3. A sketchbook, sketching pens & pencils
4. The rest of the readings and assignments will be emailed to students in the form of a pdf.

Course Schedule Overview:

January

- (1) Design Brief exploration
 - Students will be presented with a brief containing the family's stories, challenges, site location and conditions, and design instructions and parameters.
- (2) Precedents in African Architecture
 - Students will be presented with indigenous local African precedent and assigned to research more traditional architecture examples.
- (3) Readings about the history of South Africa and how it affects the built environment

- Read pages: 9, 11 and 13 on precedents in African urban design of Ubuntu In Umbumbulu (ongoing influences)
 - Watch: <https://www.youtube.com/watch?v=yNMtBGz8dSI> & <https://www.youtube.com/watch?v=IKDrRdfvUg8>
- (4) Monthly Webinar with a local architect in Durban.
- Q&A
- (5) Creating a client-family interview guide.
- (6) Weekly Studio & Crit with Design Facilitators based in Durban.

February

1. Community context (the environmental and the site properties of land and climate issues)
 - Read pages: 13-15, 29-55 on precedents in African urban design on Ubuntu in Umbumbulu (ongoing influences).
 - Read: Reading on African planning systems.
2. Precedents in African urban design (ongoing influences)
3. Reading on apartheid approaches towards housing and planning and how it shapes today (discussing our biases and others with a collaborative purpose)
4. Monthly Webinar with a local architect in Durban.
 - Q&A
5. Weekly Studio & Crit with Design Facilitators based in Durban.
6. Construction of last year's studio design commences.

March

1. Design Development
 - Read pages: 15 - 25 on Precedents in Ubuntu Home Design from Ubuntu in Umbumbulu book (ongoing influences)
2. Students begin testing iterations of their residential design.
3. Monthly Webinar with the design facilitators in Durban tackling brief parameters, design questions.
4. Students get to have crits with local students in Durban

5. Students get a virtual tour of the construction site and have a Q&A with the contractor as they develop their design materiality.

April

1. Studying South African construction methods.
 - Monthly Webinar on South African construction methods and materials followed by a Q&A with the design facilitators in Durban.
 - Students are to familiarize themselves to the South African National Building Code ([SANS](#))
2. Building contractor administers a lecture on project management and how to create a step by step plan to build a house. This is followed by a Q&A session with the contractor.
3. Extensive Construction documents Studio crit with the local contractor and studio instructor.
4. Continued virtual building lessons taught by the local builders.

May 9 - DESIGN DUE DATE

1. Design Submission Requirements
 - (a) A comprehensive floor plan
 - (b) 3- dimensional drawings (drawings that represent all sides of the building)
 - (c) Constructibility (section or cut axonometric)
 - (d) Interior and Exterior visual representation (renderings, etc)

May 10th - Virtual Housewarming Party & Students graduation from Ubuntu Architecture Virtual Design Build Studio

- Ribbon Cutting Ceremony with the family and City Mayor
- Students are handed their Certificates

Content Guide:

1. Orientation

At the beginning of the course students will participate in an orientation session outlining the calendar of events, the selected family for the project, the expectations of each participant, and an introduction to the program leaders and designated speakers.

2. Creating an interview guide

The participating students will work together to curate a list of questions they wish to ask the client family to aid them in the development of their architectural design. This list will be reviewed by the facilitators and the students will be given the opportunity to simulate the interview process with local architecture students, to refine this list into a concise and culturally sensitive set of questions. The participants will also develop visual aids to go along with the questions to help in the communication process. Once this list is completed, the team will nominate one member to communicate directly with the family and facilitate this questioning process. A translator will be provided to aid with any language barriers; the rest of the team will take notes on question responses.

3. After the family engagement portion is completed, the design team will identify the overarching themes that were communicated by the family, visually sorting them into different categories. From these categories, the facilitators will lead a discussion on these topics and what they mean to the design process, allowing for brainstorming and discussion as to how to implement them in design.

4. Upon completion of this discussion session, the facilitator will separate students into groups to tackle these themes, and participants will begin work on their specific design tasks based on their assigned theme (eg. one group theme could be a climate-based design approach, due to the family talking about rainwater entering their living space, another group may focus on a utility perspective and how they use space, another from a form perspective, etc.)

5. The student groups will consist of 2-3 individuals. In this initial phase of design, group membership will be subject to rotation in order to provide each student with a diverse breadth of architectural knowledge, foster collaborative learning, and take part in solving different problems.
6. From these schemes, students will have a crit, and select the most promising iteration, but can also draw on different aspects of the other schemes, and consolidate it into one scheme. The facilitator will then break the designers into groups based on different aspects of the consolidated design; some will focus on kitchen design whilst others focus on landscape, bathrooms, etc. Each group is expected to have a preliminary cost schedule.
7. The students then have one more review with the family before the final crit. The balance of the time will be spent developing the scheme, building the house, and engaging in dialogue that helps them better define the “why?” of every decision they make.
8. Students are expected to produce a schematic presentation that should include a money-shot rendering, floor plans, elevations (these could be replaced by a 3D or digital communication of the form), sections cutting through the house east to west, and north to south. They will also be expected to provide a preliminary material cost schedule for certain parts of the building which will be supported by an Ubuntu Design Group Quantity surveyor consultant).
9. To aid in the cross-cultural exchange, students will participate in team-building activities. One of the pivotal challenges of building a successful design team is creating an environment in which all members feel safe to voice their ideas and feel a connection to the larger team, both in goals and social interactions.



Ubuntu home designed and built by Wandile and his team for a family that lost their mudbrick home in a light rainstorm in Durban. (2018)

Instructor Profile: Wandile Mthiyane

[Wandile Mthiyane](https://www.wandilemthiyane.com/) is an Obama Leader, lecturer, Tedx Fellow, Resolution Fellow, dynamic speaker, social entrepreneur, and the founder of Ubuntu Design Group (UDG), an architectural and micro-finance organization that focuses on social-impact design projects in housing and urban design. Influenced by his childhood experiences in post-apartheid South Africa, Wandile founded UDG on the idea that if apartheid could segregate and oppress, then community-led design can liberate and provide opportunities for all. UDG is currently engaged in building homes and bringing micro-mortgages to low-income families. Wandile studied his BSA and M.Arch at Andrews University in Michigan. He currently lectures in architecture at both the University of KwaZulu-Natal and the Durban University of Technology. <https://www.wandilemthiyane.com/>

Design Facilitator Profile: Nontokozi Mhlungu

As a dynamic and ambitious young architect, [Nontokozi Mhlungu](#) possesses the design flair needed to conceptualize, coordinate and develop future landmark architecture. With a holistic yet practical outlook on design and art, Nontokozi graduated at the top of her Master's class in architecture from the University of Witwatersrand, and in 2013 she was awarded South Africa's prestigious Corobrik Architecture Student of the Year Award for her 2012 Dissertation '*Hillside Sanctuary, a reception center for Refugees*' which went on to be published in the book 10+ years 100 projects architecture in a democratic SA, and in various national industry journals. With nine years of industry experience working for internationally-renowned architects such as Peter Rich, Silvio Rech + Lesley Carstens and Stauch Vorster Architects International, Mhlungu has gained extensive expertise in the design, project management and construction of numerous luxury retail, commercial and residential developments across South Africa. Nontokozi's professional involvement extends to more creative endeavors such as fine art and product design. She is a Registered SACAP professional, an executive board member of AAC 'African Architects Collaborative' a specialized Non-Profit Organization for African architects and is a member of the South African Institute of Black Property Practitioners (SAIBPP) and the Women's Property Network (WPN) which offers her the opportunity to expand her role into real estate investments and property development ventures.

Accreditation Affiliation:

Our work is aligned to the NAAB architecture school Accreditation philosophy, 2020 Edition. Attached below are NAAB principles and objectives that align with our program:

The [National Architectural Accrediting Board](#) (NAAB) is an agency that evaluates architecture programs in the United States to ensure that graduates have the technical and critical thinking skills required to have a rewarding career in the profession.

In preparing for this edition of the Conditions and Procedures, the NAAB initiated a two-year dialogue with the collateral organizations to advance an accreditation process that ensures minimum competency of graduates based on the following goals:

- Promote excellence and innovation in architecture education
- Allow program flexibility that adapts to a dynamic context
- Encourage distinctiveness among programs
- Support equity, diversity, and inclusion in architecture education and the profession
- Increase access to the profession of architecture
- Stimulate the generation of new knowledge
- Protect the public interest

Shared Values of the Discipline and Profession The program must report on how it responds to the following values, all of which affect the education and development of architects. The response to each value must also identify how the program will continue to address these values as part of its long-range planning. These values are foundational, not exhaustive.

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Design: Architects design better, safer, more equitable, resilient, and sustainable built environments. Design thinking and integrated design solutions are hallmarks of architecture education, the discipline, and the profession.

Environmental Stewardship and Professional Responsibility: Architects are responsible for the impact of their work on the natural world and on public health, safety, and welfare. As professionals and designers of the built environment, we embrace these responsibilities and act ethically to accomplish them.

Equity, Diversity, and Inclusion: Architects commit to equity and inclusion in the environments we design, the policies we adopt, the words we speak, the actions we take, and the respectful learning, teaching, and working environments we create. Architects seek fairness, diversity, and social justice in the profession and in society and support a range of pathways for students seeking access to an architecture education.

Knowledge and Innovation: Architects create and disseminate knowledge focused on design and the built environment in response to ever-changing conditions. New knowledge advances architecture as a cultural force, drives innovation, and prompts the continuous improvement of the discipline.

Leadership, Collaboration, and Community Engagement: Architects practice design as a collaborative, inclusive, creative, and empathetic enterprise with other disciplines, the communities we serve, and the clients for whom we work.

Lifelong Learning: Architects value educational breadth and depth, including a thorough understanding of the discipline's body of knowledge, histories and theories, and architecture's role in cultural, social, environmental, economic, and built contexts. The practice of architecture demands lifelong learning, which is a shared responsibility between academic and practice settings.

4.2.3 Optional Studies. All professional degree programs must provide sufficient flexibility in the curriculum to allow students to develop additional expertise, either by taking additional courses offered in other academic units or departments, or by taking courses offered within the department offering the accredited program but outside the required professional studies curriculum. These courses may be configured in a variety of curricular structures, including elective offerings, concentrations, certificate programs, and minors.