



Home location at Mombasa, Kenya

BUILDING RESILIENCE

INSTRUCTOR

XU Liang

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COLLABORATOR

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RESEARCH QUESTION

"How can architectural design contribute to enhancing the resilience of informal settlement communities in response to rapid changes?"

In Nairobi, the capital city of Kenya, over half of the population lives in informal settlements. Since 2004, the Kenya Slum Upgrading Programme has been exploring potential approaches to improving the living conditions in these informal neighbourhoods, including large-scale redevelopment projects. What does the future hold for these neighbourhoods? The studio aims to investigate the role of architecture in supporting self-organised communities to build resilience so that they can effectively prepare for, cope with, and anticipate rapid changes and uncertainty.

Resilience is a catalyst for sustainable community development. Through research and on-site observations, students will enquire what resilience means to specific communities. What are the unique aspects of their social and economic dynamics? In terms of programming, how do these unique aspects impact the design of public facilities to address the needs and aspirations of the neighbourhoods, respond to a society in transition, and ultimately strengthen resilience?

This studio will also question how we build by exploring innovative and self-built construction methods that enable public engagement and community empowerment. Reflecting on the permanence and temporality of urban structures, the design proposals will engage with architecture's capacity for adaptation to changes, specifically through the "Design for Disassembly" method as a critical way to rethink material consumption and resource scarcity in the built environment.

DESCRIPTION

"We believe there is much to learn from informal patterns of adaptation: about socialising infrastructure to anticipate inclusion, about social-ecological transformation and about the temporalization of space."

Teddy Cruz and Fonna Format, "Informality is Praxis"

This studio focuses on designing **civic/public facilities** for self-organised communities in the informal settlements in Kenya - specifically Kibera in Nairobi and Muoroto in Mombasa. While these two settlements share common challenges typical of informal areas, such as high population density, poor infrastructure, and inadequate housing, they differ significantly in their geographic, climatic, cultural, and historical contexts. The design process will involve gaining a deep understanding of the social, cultural, and economic dynamics within these communities. The objective is to investigate how architectural design can contribute to building the resilience of these local communities in the face of ongoing societal changes, ultimately strengthening social cohesion and achieving sustainable development.

The studio targets neighbourhoods with informal social, environmental, and spatial structures. Significant populations in many rapidly urbanising cities in the Global South (including Nairobi and Mombasa, which will be studied in this studio) live in informal settlements. These settlements are often home to rural-to-urban migrants seeking better economic prospects, who turn to informality as a coping mechanism when the formal economy fails to provide sufficient employment and housing options.

Current debates in urban development studies highlight the need for more participatory, community-driven, and context-specific approaches to upgrading informal settlements, moving away from top-

down redevelopment schemes. The studio urges students to examine and integrate bottom-up strategies during the programming process. This involves understanding how people in emergency conditions create their living environment and economic relationships, as well as evaluating how current local governance, policy-making, and regulatory frameworks support the improvement of informal settlements. Students should also consider the roles and contributions of other relevant stakeholders.

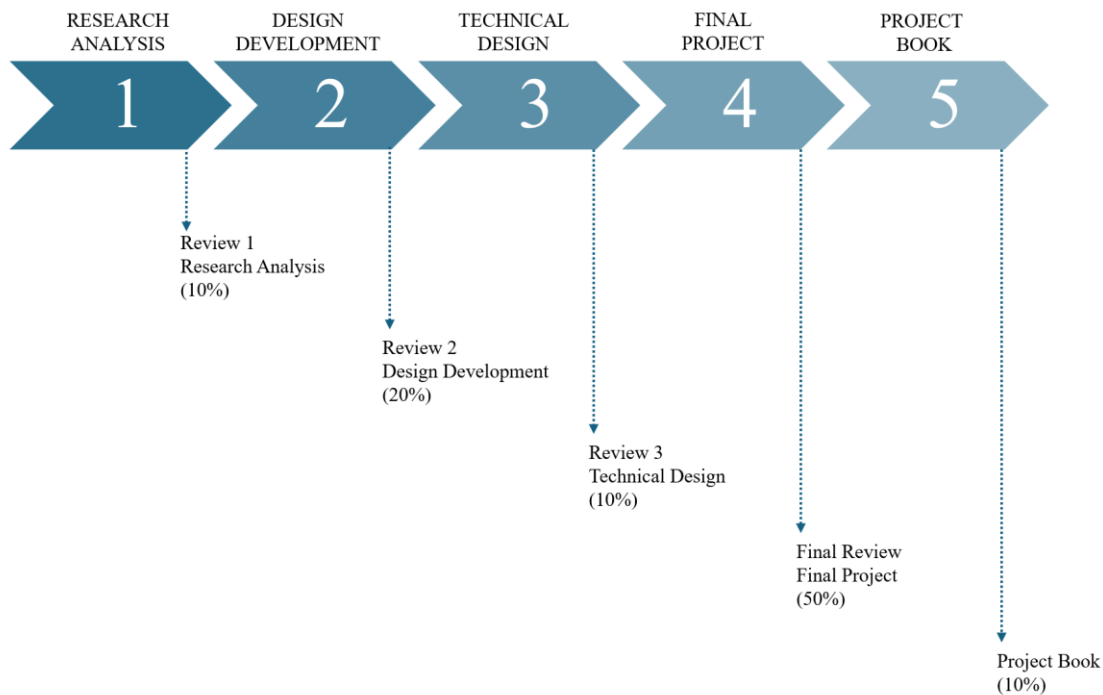
The studio promotes the idea of incorporating multiple programmes to encourage a variety of activities rather than designing a building dedicated to a single, static use. Specifically, it seeks to raise awareness among students about economic programmes such as cooperatives, community-owned businesses, and social enterprises. The goal is to explore how these programmes can help communities achieve self-financing, allowing community members to generate, manage, and reinvest resources within their own community. This would also help the community better withstand challenges and ensure the continuity of essential services and livelihoods, promoting long-term sustainable development and well-being.

The studio values the self-built approach commonly seen in informal settlements, as it allows residents to create housing and infrastructure tailored to their own needs and financial capabilities. However, lacking formal resources, such as technical assistance and building materials, makes the self-built process more challenging and time-consuming, leading to substandard living conditions and vulnerability. The studio believes that effective, sustainable solutions should be based on the nuanced realities and self-organising capacities of local communities. To that end, students will explore how the public can participate in and benefit from the construction process by designing structural prototypes and assembly methods that facilitate easy, high-quality, and safe self-building.

Furthermore, the studio encourages students to consider the flexibility and adaptability of the comprehensive construction system they are developing, exploring strategies such as "Design for Disassembly" and "Design for Adaptation" to support implementing a circular economy. When structures are designed for disassembly, residents can easily take them apart, salvage materials, and reassemble them as needs change over time or in response to external shocks and stresses. This flexibility is particularly valuable in informal settlements, where residents can efficiently reconfigure and reinforce their structures, maximising the use of limited resources. Moreover, as building components are reused and repurposed, the need for new, resource-intensive materials is reduced. This conserves scarce resources and minimises waste, strengthening the overall environmental and economic resilience of the settlement.

In summary, the studio aims to investigate the issue of sustainability for the resilient future of informal settlements from two key aspects: 1) Sustainable Cities and Communities (SDG 11) - improving the living conditions and resilience of informal settlements/communities in a sustainable manner; and 2) Responsible Consumption and Production (SDG 12) - employing design and construction approaches that minimise waste, promote the reuse of materials, and support circular economy principles. Individual design projects may also align with other relevant SDGs, such as Good Health and Well-being (SDG 3), Quality Education (SDG 4), Gender Equality (SDG 5), and Clean Water and Sanitation (SDG 6).

The following diagram describes the structure and the assessment criteria for the year.



IMPACT AND SUSTAINABILITY

This studio will encourage students to develop impactful solutions for building more resilient and sustainable communities. By immersing themselves in the complexities of informal settlements, students will have the opportunity to grow and learn in the following five key aspects:

CULTIVATING RESILIENCE MINDSETS

Students will develop a deep, nuanced understanding of the concept of "resilience" and learn how it can be leveraged to catalyse sustainable and inclusive community development. This will equip them with a powerful framework for addressing the multifaceted challenges faced by marginalised communities.

BROADENING PERSPECTIVES ON URBAN INFORMALITY

The studio will expose students to the diverse realities, challenges, and untapped opportunities within informal settlements. By shedding preconceptions, students will gain a broader, more empathetic perspective on the complex dynamics shaping urban informality.

EXPLORING INNOVATIVE ECONOMIC MODELS

Students will investigate economic programmes and self-financing models that empower self-organised communities to drive their own development. The exposure to cooperative, community-owned businesses and social enterprises will inspire innovative approaches to economic and social empowerment.

EMBRACING PARTICIPATORY DESIGN

Through direct engagement with local stakeholders, students will experience the transformative power of participatory, community-driven, and context-specific design approaches. This will instil in them a deep commitment to inclusive, bottom-up development strategies.

DESIGNING FOR FLEXIBILITY AND ADAPTATION

By exploring structural systems and assembly methods that facilitate easy construction and improve the quality and safety of self-built structures, students will develop design skills that can respond to the evolving needs of the community in transition.

While the studio's primary focus is on informal settlements in Kenya, the community-centric design methodologies and adaptable design approaches uncovered in this studio can offer invaluable insights to address similar challenges in Hong Kong's urban landscape, such as housing affordability and urban renewal. By bringing back the knowledge and perspectives gained from this studio, students can contribute to the ongoing discourse and innovation in Hong Kong's urban development, inspiring the design of more inclusive, responsive, and self-sustaining interventions that uplift marginalised communities and shape a more equitable urban future.

METHODS

Limbering Up (Provision)

For the first-week drawing assignment, students from this studio will engage in an initial study of informal settlements in Kenya. They will read excerpts from literature written by residents of these settlements, describing life there, and then attempt to draw scenes based on their understanding. Students have the option to depict a single moment or create a collage of impressions gathered from the text. Instead of using paper, students will draw directly on a plywood board provided by the studio.

The plywood board will be a continuous tool throughout the year. Inspired by the concept of palimpsest, where a manuscript page or document is written on, scraped off, and then reused, students will continuously modify and update the same board as their understanding of the informal settlement deepens. This approach will result in visible layers of marks, erasures, and revisions on the surface. The drawing will serve as a key presentation material, reflecting the idea of “transforming over time” that is integral to the studio.

01_Phase 1 – Research Analysis (Understanding the Place)

The research analysis phase aims to discover the meaning of resilience for specific informal communities in Kenya. Students will start by collecting and studying theories, cases, and other research materials related to the social, cultural, and economic context of the informal settlements in Nairobi and Mombasa.

In addition to understanding the needs, priorities, and perspectives of local residents, it is important to study the engagement and collaboration of other key stakeholders. This includes: Government authorities responsible for urban planning, infrastructure provision, service delivery, policymaking, resource allocation, and implementation of development programmes; Non-governmental organisations (NGOs) and community-based organisations that facilitate development initiatives; International development agencies and donors (e.g., World Bank, UN-Habitat) that provide technical and financial support and have specific policies and funding priorities; Other groups such as private sector actors, academic and research institutions, civil society organisations, and advocacy groups.

Alongside this, students will map the focused area in the selected informal settlement. This will help them understand the urban layout and changes over time, access to basic services, distribution of public facilities, and identify potential locations for design intervention. Integrating this spatial understanding with the broader contextual research will allow students to develop a preliminary spatial planning scheme and programming idea.

02_Phase 2 – Design Development (Site Response and Programming)

In this phase, students will expand on their initial research and translate their preliminary ideas into design development. They will consider integrating the various programs with the context by responding to the site and developing a programming proposal. Students will refine and test the site-responsive strategies, as well as iterate the spatial organisation of the proposed programmes. By the end of this phase, students should compile their work into an A4 booklet. This booklet should include a research summary, site analyses, programming ideas, and the design schemes they have developed.

02_Phase 2 ½_Field Trip (Learning from the Context)

The studio will organise a field trip to Kenya in December. This immersive on-site experience will provide students with a valuable opportunity to engage deeply with the informal settlement context and gain a more profound understanding of their projects' challenges and potential.

During the field trip, students will have the chance to observe the spatial organisation, building typologies, construction techniques, and public life within the informal settlements firsthand. This direct exposure may lead them to uncover innovative local practices, materials, or spatial strategies that could be integrated into their design proposals. Beyond just observing the physical environment, students will also have the opportunity to engage with the local community. By communicating their research findings and design proposals directly with the residents and other stakeholders, students can collect valuable feedback and insights into the aspirations of the community as well as the social, cultural, and economic dynamics that influence the development of these informal settlements.

03_Phase 3 – Technical Design (Forming a System)

Upon returning from the field visit, students will revise their initial project position and design proposals based on the new insights and understanding they have gained. In the technical design phase, the studio will focus on the question of how to build and consider if such a way of building can benefit the local community to build resilience and allow adaptation for future changes. Students will explore strategies such as "Design for Disassembly" and "Design for Adaptation" to develop structure prototypes and assembly methods that allow for easy construction and public engagement. The technical study aims to inform the further development of the project rather than finding constructional and structural solutions. To this end, students will use large-scale models (1:2, 1:5, 1:10) to study the joint design and evaluate the structural performance of the construction systems they are designing.

04_Phase 4 – Final Project

In the final phase, students will further develop their project by integrating the previous studies into a comprehensive design narrative. This design narrative should consider a longer time frame. First, students should reflect on their own role and how they will involve the local community in the construction process. They may develop tools to empower amateur builders, allowing them to better understand the construction systems and master the building techniques. Second, students will illustrate how the local community will use and interact with the spaces in their everyday lives after the project is completed. To portray this vision, students will primarily work with renderings and collages. Finally, students will envision how the local community and the project could evolve when changes occur. In other words, they will consider how their design can adapt to and anticipate rapid changes and uncertainty.

DELIVERABLES

Ongoing

Students will be compiling a process book - a comprehensive A4 portrait documentation of their entire learning journey. This process book will serve as a key piece of evidence showcasing the project's development **during all reviews**. The process book should be organised into five sections:

- Research: Understanding the Place

- Design Ideas: Site Response and Programming
- Site Visit: Learning from the Context
- Technical Study: Forming a System
- Design Development

Students must provide proper citations for any materials or sources that are not their original work.

01_Final

- Oral and graphical presentation of relevant materials from above in all formats.
- The final review is a celebration and exhibition of the overall work produced by students over a 3-day event and will include a diverse cross section of international and regional experts relating to the studio research area.

02_Project Book

- Physical/printed and bound portfolio document with a common format across all students within the studio.
- This will include a written introduction to your overall project position, graphics of your design process, and a comprehensive technology report including design and construction details.

LEARNING OUTCOMES

1. **Ability** to create architectural designs that satisfy both aesthetic and technical requirements.
2. **Ability** to generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations.
3. **Ability** to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals.
4. **Ability** to assemble a comprehensive programme for an architecture project, including:
5. **Ability** to respond to natural and built site characteristics in the development of a programme and design of a project.
6. **Ability** to work cooperatively with others in a team setting.
7. **Ability** to discuss architectural ideas with non-architects, to listen objectively to their opinions and to consider those opinions in designing.
8. **Ability** to speak and write effectively on subject matters contained in the professional curriculum in English.
9. **Ability** to use appropriate representational media, such as drawings, models, diagrams, charts, including computer technology, to convey essential design information at each stage of the programming and design process.
10. Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale.
11. Understanding of the methods of investigation and preparation of the brief for a design project.
12. Awareness of the theories and methods of inquiry that seek to show the relationship between human behaviour and the physical environment.
13. Understanding of the basic principles of sustainable development and architects' responsibilities with respect to the social, economic, and environmental sustainability in architecture and urban design.
14. Understanding of the principles of structural behaviour in withstanding gravity and lateral forces, and the range and appropriate applications of contemporary structural systems.
15. Knowledge of the fine arts as an influence on the quality of architectural design.

16. Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences.

ASSESSMENT SCHEME

0_Studio Drawing Assignment, September

The first week will be reserved for a shared drawing assignment within all studio groups. The drawing provocation will be issued by individual section tutors on the first day of the studio after course selection. The submission will be in a flexible format and all works will be part of an exhibition in the SOA Atrium.

1_Reviews (40%)

1. Review 1, October (10%) –Research Analysis
2. Review 2, December (20%) – Design Development
3. Review 3, March (10%) – Technical Design

2_Final Review (50%)

1. Final Project Presentation, May (50%) – Final Project

3_Project Book (10%)

1. Project Book has three parts: Position / Technology Report / Process.
2. To be started at the beginning of the year and reviewed throughout.

Each assessment result will be promptly released to students upon completion accompanied by written comments based on student progress and performance.

COURSE FORMAT

1_Group Work

1. Students may work in groups on various assignments and projects throughout the course calendar.
2. Final projects must be based on individual building design proposals. If the preliminary work shown was developed in partnership with other students – this must be explicitly stated and assessed accordingly.

2_Teaching Days

1. The Design Studio will be taught on Monday and Thursday 13:30 to 18:00. Students must be in a studio during these teaching hours.
2. Students must attend School Lectures scheduled 12:30 – 13:30.
3. Field trips, lectures, and other learning activities may be scheduled outside of teaching days.

3_Studio Spaces

1. Each Studio will have their own space, accommodating a desk for each student.
2. Layouts will be issued at the start of the academic year.
3. The school has made studio space and use a priority. Students should maximise the use of their space by conducting design work in studio.
4. Working in the studio creates an opportunity for peer learning and collaboration – take advantage of this valuable resource.
5. Studio space should be respected – especially with consideration of food, drinking, material use, personal safety, disruption to others, and building safety regulations. Areas relating to fire escape should be always kept clear.

4_Group Pinups

There are five informal scheduled pinups for sharing across different studio units. These are designed to give students practice in orally presenting the priorities of their research, investigations, and design interests.

TECHNICAL DESIGN

Building and structural systems support will be coordinated by Prof. Shuaizhong WANG beginning in term 2 and ahead of the Technical Design assessment. Consultations with experts will assist in adding a stronger technical focus and key design element to a studio design project. Sessions can be scheduled by studio groups, and with individuals. Students are recommended to prepare appropriately ahead of those consultations with their own research, drawings, and materials to maximise this resource.

FIELD TRIP

The studio will organize a field trip to Kenya (Nairobi and Mombasa) in December 2024.

REQUIRED READINGS

- Charlesworth, Esther Ruth, and Rob Adams. *The EcoEdge: Urgent Design Challenges in Building Sustainable Cities*. London: Routledge, 2011.
- Avermaete, Tom, ed. *Into the open: accommodating the public = Publieke plaatsen. Oase 77*. Rotterdam: NAI Uitg, 2008.
- Callejas, Luis, Fernanda Canales, Stella Betts, Stav Dror, and Nina Rappaport. *Reimagining the Civic*. Print. New York: Actar D & Yale School of Architecture, 2022.
- Carracedo, Oscar, ed. *Resilient Urban Regeneration in Informal Settlements in the Tropics: Upgrading Strategies in Asia and Latin America*. Advances in 21st Century Human Settlements. Singapore: Springer, 2021.
- Cruz, Teddy, and Fonna Forman. *Socializing Architecture: Top-down Bottom-Up*. Berlin: Hatje Cantz Verlag, 2022.
- Dovey, Kim. 'Informalising Architecture: The Challenge of Informal Settlements'. *Architectural Design* 83, no. 6 (November 2013): 82–89. <https://doi.org/10.1002/ad.1679>.
- Flores, Ricardo, Eva Prats, Moisés Puente, and Fabrizio Gallanti, eds. *Drawing without Erasing and Other Essays*. Cologne: 2G essays, 2023.
- Kajijima, Momoyo, Junzo Kuroda, and Yoshiharu Tsukamoto, eds. *Made in Tokyo*. 1. publ. Tokyo: Kajijima Publ, 2001.
- Karunaratne, Gihan. *Informal Settlements of the Global South*. 1st ed. London: Routledge, 2023. <https://doi.org/10.4324/9781003191407>.
- Lecture Series: Emergent Practices in South Asia, <https://mittalsouthasiainstitute.harvard.edu/lecture-series-emergent-practices-in-south-asia/>

IMPORTANT NOTE TO STUDENTS

Expectations for Professional Conduct

The motto of The Chinese University of Hong Kong (CUHK) is “Through learning and temperance to virtue”. This motto places equal emphasis on the intellectual and moral education of students. In addition to pursuing academic excellence, students of CUHK are expected to maintain and uphold the highest standard of integrity and honesty in their academic and personal lives, respect the rights of others and abide by the law. More information on Postgraduate studies can be found in the PG Student Handbook. <https://www.gs.cuhk.edu.hk/>

Attendance

Class attendance is required in all courses. For an excused absence, the instructor must be notified and presented with documentation of illness or personal matter. Please note: **Three (3)** or more unexcused absences may result in a failing grade for the course.

Academic Honesty

The Chinese University of Hong Kong places very high importance on honesty in academic work submitted by students and adopts a policy of zero tolerance on academic dishonesty

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at: <http://www.cuhk.edu.hk/policy/academichonesty/>.

With each assignment, students may be required to submit a statement that they are aware of these policies, regulations, guidelines and procedures.

Third-Party Assistance

All intellectual work essential to the design project must be completed by the student and cannot, under any circumstance, be outsourced to a third party (including, but not limited to a company, consultant, alumni, and/or friend).

In the design studio context, students may utilize external resources, such as printing services for presentation materials, and/or laser cutting and 3D printing services for prototyping purposes. Use of such third-party services constitutes non-intellectual work done by others. It is only permitted with prior written consent from the studio tutor and acknowledgment of such work done by the third party.

Assistance from other students or friends for aspects of project production also constitutes non-intellectual work done by others; this is allowed only if declared and acknowledged in a written statement attached to any such work that has received assistance.

Under all circumstances, students must declare all work done by others by completing the school's designated form before assessment. This form must include a detailed explanation of the third party's identity (name and relationship to the student), when and how they were utilized, and the specific tasks they performed in the project. The completed form, signed by the student, must be endorsed by the tutor and presented during the final review. The school will collect and retain this form for record-keeping purposes.

Failure to follow this code of conduct may be considered a case of academic dishonesty, to be reviewed by a disciplinary board, and possible failure of the course.

Artificial Intelligence

Unless approved by the Programme or School Director, any use of AI tools such as ChatGPT or image generation tools (Midjourney) etc. is strictly prohibited and may result in disciplinary action in accordance with university policy on academic honesty. Students may refer to the CUHK 'Use of Artificial Intelligence tools in Teaching, Learning and Assessments' – A Guide for Students.

Student Work

Submission of studio documentation must be complete and correctly formatted. Missing or incomplete submission of the documentation folder will result in the grade for the course being withheld. This will prevent registration for the following term or delay graduation. In addition, a grade deduction of *one letter grade* will be made.

SCHEDULE

Important Dates

0_Studio Selection for Students 02 SEP 2024
1_Studio Drawing Assignment 05-12 SEP 2024

2_ Reviews (40%)

Review 1, 28-31 OCT 2024 (10%)
Review 2, 09-12 DEC 2024 (20%)
Review 3, 03-06 MAR 2025 (10%)

3_Final Review (50%)

Final Project Presentation, 06-08 MAY 2025 (50%)

4_Project Book (10%)

Project Book, 17 MAY 2025

5_HKIA EXHIBITION

Tutors are to collect all studio materials for the HKIA Exhibition before 25 MAY 2025.

Term 1: 2 September 2024 (Monday) – 12 December 2024 (Thursday)

WEEK 01		
02.09	ORIENTATION & STUDIO PRESENTATION	Studio Selection for Students
06.09	DAY_01 OF STUDIO	Phase 0 – Limbering Up (Provision)
WEEK 02		
09.09		
12.09		Drawing Exhibition – and Review (12:30-13:30)
WEEK 03		
16.09		Phase 1 – Research Analysis (Understanding the Place)
19.09		
WEEK 04		
23.09		
26.09		
WEEK 05		
30.09		
03.10		
WEEK 06		
07.10		
10.10		
WEEK 07		
14.10		PINUP_01
17.10		
WEEK 08		
21.10		
24.10		
WEEK 09		
28.10		Review 1/3
31.10		Review 1/3

WEEK 10		
04.11	Phase 2 – Design Development (Site Response and Programming)	
07.11		
WEEK 11		
11.11		
14.11		
WEEK 12		
18.11	PINUP_02	
21.11		
WEEK 13		
25.11		
28.11	Last Day of Teaching	
WEEK 14		
02.12		
05.12		
WEEK 15		
09.12	REVIEW	REVIEW 2/3
12.12	Phase 2 ½ – Field Trip (Learning from the Context)	

Term 2: 6 January 2025 (Monday) – 17 May 2025 (Friday)

WEEK 19

06.01 **Phase 3 – Technical Design (Forming a System)**

10.01

WEEK 20

13.01

17.01

WEEK 21

20.01 **PINUP_03**

23.01

WEEK 22

27.01

30.01 **University Lunar New Year Vacation (28-02 Feb)**

WEEK 23

03.02

06.02

WEEK 24

10.02

20.02

WEEK 25

17.02 **PINUP_04**

20.02

WEEK 26

24.02

27.02

WEEK 27

03.03 **REVIEW 3/3**

06.03 **REVIEW 3/3**

WEEK 28

10.03 **Phase 4 – Final Project**

13.03

WEEK 29

17.03

20.03

WEEK 30

24.03

27.03

WEEK 31

31.03

03.04

WEEK 32

07.04 **PINUP_05**

10.04

WEEK 33

14.04

17.04 **Last Day of Teaching**

WEEK 34

21.04 **Easter Holiday**

24.04

WEEK 35

28.04

01.05 **Labour Day**

WEEK 36

05.05 **Buddha's Birthday**

08.05 **Final Review (06-08)**

WEEK 37

12.05

17.05 **Project Book Submission (17 May)**

MArch Studio Review

Written Feedback to Students

Term: _____

Grade: _____

Review: _____

Studio Tutor: _____

Student Name: _____

Student ID: _____

Feedback from Studio Tutor:

Achievements:

Challenges:

Academic Honesty Statement

*Please print out and pin-up next to your works on your allocated panels

Relating to the 2024-25 Term 2 Studio Review pin-up (MArch students)

Please tick one of the following:

All the work and models presented at the Final Review were made by me personally

All the work and models presented at the Final Review were made by me.

with the exception of the following:

Under all circumstances, students must declare all work done by others by completing this form before the review. Provide a detailed explanation of the third party's identity (name and relationship to the student), when and how they were utilized, and the specific tasks they performed in the project.

Student's Name: _____

Date: _____

Signature: _____

Tutor's Name: _____

Date: _____

Signature: _____

Grade	Descriptor	Criteria	Points
A	Excellent	Comprehensively excellent performance on all aspects of the design intention, development, technical resolution and presentation. Achieving all learning outcomes with distinction.	4
A-	Very Good	Generally outstanding performance on the design intention, development, technical resolution and presentation. Achieving all learning outcomes with merit.	3.7
B+	Good	Substantial performance on the design intention, development, technical resolution and presentation. Achieving all learning outcomes satisfactorily.	3.3
B			3
B-			2.7
C+	Fair	Fair performance on the design intention, development, technical resolution and presentation. Achieving all learning outcomes at a passing standard.	2.3
C			2
C-			1.7
D+	Pass	Barely satisfactory performance on the design intention, development, technical resolution and presentation. Achieving all learning outcomes at a barely satisfactory standard.	1.3
D			1
F	Failure	Unsatisfactory performance on the design intention, development, technical resolution and presentation. Not achieving all learning outcomes.	0