

CREATE CHANGE

Master of Architecture Studio and Research Offerings Semester 1 2024



Advanced Architectural Design: Institutions and Ideology

The Prime Ministerial Library

Course coordinator Nicole Sully

In the USA, the National Archives and Records Administration maintains a network of libraries dedicated to the papers and historical legacy of outgoing presidents. Since Franklin Delano Roosevelt, every American President, has planned for their library. To date, thirteen have been dedicated and three more are in progress.

These libraries are a hybrid of a museum, monument, and archive. They most often include a burial place, and sometimes include working offices for retired Presidents and their staff. As such, they have become an important tool for controlling and perpetuating the oftenvexed legacy of political leaders and their era in office. Dispersed around the country, usually in places of significance to the commemorated figure, they have also become important tourist attractions.

In Australia, the papers of past Prime Ministers are predominantly housed in the National Archives in Canberra, with the occasional collection of papers housed in various institutions, such as the Bob Hawke Collection in South Australia, and John Curtin's in Perth. This studio proposes to test the possibility of adapting this American model to Australia through the design of a Prime-Ministerial Library.

Students will be expected to work iteratively and independently and undertake rigorous historical and architectural research. Inventive, imaginative and intellectual responses will be particularly encouraged.

Advanced Architectural Design: Landscapes and Architecture

Cultural landscapes and plans for Terra Bula, Minjerribah

In this landscape and architecture studio, we will work with Aboriginal Elders to develop design proposals at different scales for a site on Minjerribah (North Stradbroke Island). The Minjerribah Moorgumpin Elders-In-Council Aboriginal Corporation (MMEIC) has requested assistance in developing conceptual designs for Terra Bulla, a 1.5 hectare bushland property near Goompie (Dunwich). Highly significant to the Quandamooka people of Moreton Bay, Terra Bula is part of a cultural landscape shaped by layers of cultural and social history, and adjacent to ecosystems of high conservation value. The site lies at the centre of the Myora Aboriginal reserve, a state administered settlement that was home to Quandamooka families from 1892 to 1943. Minjerribah Moorgumpin Elders now conduct cultural training on the site and limited infrastructure supports community cultural events. On-site meetings with MMEIC will develop the brief for a masterplan and architectural interventions that support existing and new uses of Terra Bula. Site visits are integral to the studio with public transport connecting Dunwich and Terra Bula to Brisbane.

Course coordinator Tim O'Rourke

ARCH7043 Architectural Practice: Design

Avalon Affordable Apartments

Course coordinator Mark Jones

Prerequisite

BLDG7021 and one of: ARCH7002, ARCH7003, ARCH7004, ARCH7005, ARCH7007 or ARCH7015 This is the sole core (compulsory) design studio in the UQ Masters in Architecture, and the course delivers a suite of critical AACA Performance Criteria for graduating students. It is recommended to undertake the companion course *ARCH7044: Architectural Practice: Report* concurrently with this studio as there is substantial cross-fertilisation between these two courses.

In this course, ARCH7043, students will produce an architectural design that creatively responds to an important contemporary issue involving social, technical, cultural, economic and environmental challenges. Housing affordability is one of the most critical social issues of our time and one in which architects around Australia are deeply involved. The studio engages with Brisbane Housing Company, an affordable housing provider, as the client.

Students will develop and apply critical thinking resulting in a refined and technically resolved design proposal, showing an understanding of social pressures, development triggers, legislative frameworks, commercial demands and construction processes. Learning activities focus on design thinking that demonstrates the application of the relevant professional competencies expected of a graduating architecture student.

The studio will connect participants with an eminent Brisbane practitioner, who will help guide students to strong design outcomes on a substantial affordable housing project. In addition to those practitioners, the Course Coordinator will be supported by tutors who are highly experienced architects from industry, plus a suite of guest lecturers across various topics.

The site is adjacent to the heritage-listed Avalon Theatre on Sir Fred Schonell Drive, St Lucia. The studio will explore the viability and impact of locating affordable housing and retail outlets on a suite of amalgamated sites.

The studio will emphasise design principles of (a) building on Country, (b) whole-of-life low- carbon, (c) code compliance, (d) buildability, (e) urban contribution, (f) planning, aesthetic and spatial merit and (g) commercial viability. Outputs are expected to demonstrate an advanced level of design skill across these dimensions.

The course will be delivered partly at St Lucia in the daytimes and partly at the UQ CBD campus in the evening with the eminent practitioners.

Course coordinator Ray Maher

Pursuing sustainable urban futures for Cairns using foresight, systems and design approaches

Cairns offers a unique urban context, situated between world heritagelisted environments (the Great Barrier Reef and the Wet Tropics Rainforest), with only a narrow development corridor for the city's future expansion. Looking towards 2050, the city seeks a new development pathway which enhances liveability, manages population growth, builds climate resilience, and protects biodiversity. The approaches we use to address these challenges – in Cairns and globally – will determine our ability to achieve sustainability goals.

Students in this Urban Futures Studio will pursue this task by weaving together new foresight methods and systems thinking through an iterative design process. Students will begin by exploring critical issues and developing long-term scenarios and speculations of Cairns for key themes (e.g. climate change, mobility, water, demographics, energy, biodiversity etc). Students will then build on this shared resource to develop an urban design proposition for one of two sites. Throughout this studio, students will develop valuable professional skills and folio pieces.

Students will liaise with government and industry leaders and community stakeholders as part of the design process and build on a project-based collaboration between UQ and the Cairns Regional Council initiated in 2022. Students will also benefit from the expertise of an interdisciplinary team of researchers pursuing urban sustainability.

ARCH7074 Research Lab: Environmental Performance

Course coordinator Paul Matthew

The Environmental Performance Research Lab is focused on making quantitative assessments of environmental performance in the built environment. This subject will introduce the methods and tools used to assess the embodied carbon, urban water balance, operational energy and indoor environment quality in the built environment, as well as some of the metrics and goals associated with NCC compliance and Net Zero Buildings.

Over the course of the semester, students will assess the water performance, embodied carbon and operational energy use of typical low- and medium-rise multi-residential designs constructed to current standards and with typical construction materials. With these calculations as a baseline, students will research and critically assess alternative water-sensitive strategies, building materials/systems and design strategies that claim to improve water performance and reduce embodied greenhouse gas emissions. Finally, students will propose alterations to the design and construction of the study buildings in order to improve environmental performance and to meet Net Zero goals.

ARCH7084 Research Lab: History and Heritage

Course coordinators John Macarthur Kelly Greenop

This Research Lab focuses on the uses and understanding of built environments constructed in the past – how we can learn from them and manage their ongoing lives. The Lab introduces theoretical and methodological issues of historiography such as forms of analysis, argument and evidence; and research practices such archival research and oral history; the collecting and maintaining of archives of architecture; and Digital Humanities techniques such as 3D scanning, data analysis and visualisation. The course includes a critical understanding of the principles and statutory regulation of cultural heritage. Students will employ the learning through researching, documenting, and analysing a building, persons, institutions, or ideas.

WATR6105 Integrated Urban Water Management

Students following the 2023/2024 Master of Architecture program structure can choose WATR6105 as a **MArch Elective Course**.

Students following the pre-2023 program structure can choose WATR6105 as a **MArch Research course.**

Course coordinator In T Steven Kenway

In this unit, students will learn and apply advanced knowledge relevant to the analysis, design, and planning of integrated urban water systems. This will span natural and anthropogenic flows (rainfall, stormwater, evapotranspiration, water supply and wastewater). It will reveal the multiple interactions between different parts of the water cycle and connections with infrastructure, architecture and other cycles including energy and nutrients. Students will be able to understand and relate to social, regulatory and economic challenges and drivers, and be able to contribute to planning guidelines, policies and regulations. Supporting conceptual frameworks of metabolism, sustainability, resilience, and multi-criteria decision making will be developed. An overview of future urban scenarios, including centralised, decentralised and hybrid system design in greenfield and existing developments in different regions will provide context. A field trip to leading contemporary designs/sites, and a team challenge for a specific site will lead into a Design Challenge based on the internationally successful and national award-winning process developed by the course team at UQ. On completion, students will be able to use integrated water management principles and related analytical tools for developing efficient, multi-purpose and hybrid water systems including architectural, engineered and landscape components. Group and individual projects and assignments will enhance trans-disciplinary communication, presentation and teamwork skills.

ARCH7033 Climate Futures and the Built Environment

Students following the 2023/2024 Master of Architecture program structure must complete ARCH7033 as a **MArch Core Course**.

Students following the pre-2023 program structure can choose ARCH7033 as a **MArch Research course.**

Course coordinator Liz Brogden ARCH7033 is a research course designed to provide an interdisciplinary understanding of climate change as it relates to built environment design. Through a solutions-oriented and future-focussed approach, students will learn how architects are positioned to address many different types of sustainability problems through design projects, and how we can collectively redirect systems that are currently in crisis. Learning is guided by both core content and self-directed research to develop a proposal for a disaster-prone site in a specific context. ARCH7033 develops skills in Place-Based Approaches to sustainability through: climate-responsive design, community resilience, material resource use within planetary limits, carbon and circular economy, and integrated responses to environmental, social, and economic systems.

ARCH7060/ARCH7063 Architectural Research: Thesis

Course coordinator: John Macarthur

ARCH7060 - Year-long, four-unit thesis

ARCH7060 is a guided independent research project conducted through a series of advisory meetings and self-directed study. It is a year-long, 4-unit course that will require a submission in October 2024. Thesis offers students the opportunity to undertake a focussed research project in a specific area of research interest. The course expects students to achieve an advanced level of academic argument and the mastery of instruments for constructing and expressing that argument.

The research project culminates in a body of work that communicates the process, outcomes and value of the research. This may include, as agreed with the thesis advisor, a written dissertation, fieldwork reports, artefacts from material experiments, and research reports.

Students will have an individual advisor and meet one hour per week, or a blocked equivalent. The thesis student cohort, coordinator and advisors will meet together during the semester to provide all with an overview and comparison of the research being undertaken and the expectations for thesis.

ARCH7063 – One Semester, two-unit thesis

ARCH7063 is a 2 unit thesis course. The thesis will be submitted in Semester 1 2024. ARCH7063 has the same expectations for research quality and findings as ARCH7060, and the same requirements for the length of the dissertation, which will be marked on the same criteria. It is only suitable for students who have made substantial research findings in a prior Research Course that can be tightly articulated with 2 units of work in ARCH7063 to reach the standard of a thesis. A student's work in ARCH7063 can draw on work previously submitted for Research Courses, but this work must be clearly identified in the thesis and overall the thesis must represent two units of new work in research and writing carried out in the current semester.

Thesis is available to students who:

- have completed **16 units** of the MArch program
- have, or expect to have a GPA of 5.5 or above,
- for ARCH7063, have completed 2 units of Research Courses

• and have the support of a potential advisor on a topic outlined on the application.

Students who do not meet the criteria above will be considered on a case-by-case basis.

Students who are considering enrolling in a Higher Degree by Research degree (Master or Doctor of Philosophy) in the future are **strongly encouraged to undertake the Thesis option.**

Application process

1. Identify a potential advisor who is a member of the full-time academic staff within the School. Please be aware that staff members are generally taking on Thesis students on top of their allocated teaching load, so you need to be working on a project of interest to them and where they have expertise. You can find descriptions of staff research interests at <u>UQ Researchers</u> We are unable to take on topics where no suitable staff are available to advise.

2. Discuss your ideas for thesis with the proposed advisor. You are welcome (and encouraged) to propose topics of your own interest.

3. If you are applying for ARCH7063 please show the research findings you have made in a previous course can be the basis of a thesis completed with 2 units of work.

4. Complete the application:

https://survey.app.uq.edu.au/ThesisApplication Please complete this application form by **11:59pm 31 January 2024.**

5. The Course Coordinator will decide on applications in consultation with the proposed advisor, and on the basis of academic record. Following this, the School of Architecture, Design and Planning will advise you of the next steps.

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