

ARCHITECTURE AND URBAN ENVIR. (ARCH)

ARCH 1004 Drawing and CAD (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch1004/>) **Legacy Code:** 301228

This unit is designed to provide students with the knowledge and skills necessary to develop elementary design skills and basic CAD (Computer Aided Design) proficiency suitable for application within the building industry. Students will learn to describe building designs in plan, section, elevation, isometric and perspective views. Basic drafting concepts and skills will be acquired in the context of individual detached housing designs. Students will also be required to develop appropriate analytical and problem solving skills in dealing with a realistic house building project.

Level: Undergraduate Level 1 subject

Equivalent Subjects: ARCH 1003 Graphic Communication and Design (WSTC)

ARCH 1001 Graphic Communication and Design

ARCH 1005 Drawing and CAD (WSTC)

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 1005 Drawing and CAD (WSTC) (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch1005/>) **Legacy Code:** 700306

This unit is designed to provide students with the knowledge and skills necessary to develop elementary design skills and basic CAD (Computer Aided Design) proficiency suitable for application within the building industry. Students will learn to describe building designs in plan, section, elevation, isometric and perspective views. Basic drafting concepts and skills will be acquired in the context of individual detached housing designs. Students will also be required to develop appropriate analytical and problem solving skills in dealing with a realistic house building project.

Level: Undergraduate Level 1 subject

Equivalent Subjects: ARCH 1003 - Graphic Communication and Design (WSTC) ARCH 1001 - Graphic Communication and Design ARCH 1004 - Drawing and CAD

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 2001 Architecture Studio - Fundamentals of Analogue Design (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch2001/>) **Legacy Code:** 301197

This unit will introduce students to fundamentals of spatial composition as it relates to visual and temporal experience in architectural contexts. Project-based assessments will involve the creation of 2D and 3D compositions that explore traditional organisational strategies, classical principles of geometry, materiality, experiential phenomena, and representation. Students will work with analogue and traditional tools including freehand drawing and conventional shop equipment. The unit will also provide an introduction to the history, theory, and discourse of architecture from 4000BC to the Enlightenment.

Level: Undergraduate Level 2 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 2002 Architecture Studio - Fundamentals of Digital Design (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch2002/>) **Legacy Code:** 301198

This unit introduces students to fundamentals of spatial organisation and human experience in the built environment. Principles of making will be practiced and analysed for their relationship to architectural outcomes, the study of Modern organisational strategies, materiality, experiential phenomena, and abstraction. Students work on project-based assessments that involve an iterative process of reflection and refinement, the use of digital techniques of 3D design including NURBS modelling and rapid prototyping to explore architectural concepts. This work is contextualised as students learn about the history, theory, and discourse of architecture from the Industrial Revolution to the Present.

Level: Undergraduate Level 2 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 2003 Development Control (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch2003/>) **Legacy Code:** 300723

This unit provides an overview of development control and associated legislation. These include: interpretation of planning law as it relates to the development application process; the assessment of applications for approval for development as an integrated process; the evaluation of the impact assessment process; appropriate consideration of urban design, streetscape, heritage and conservation issues; and the evaluation of the impact of parking, traffic, landscape and services in development proposals.

Level: Undergraduate Level 2 subject

Equivalent Subjects: ARCH 2004 - Development Control

Incompatible Subjects: BLDG 1012 - Property Development Controls

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 3002 Architecture Studio - Global Cities (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch3002/>) **Legacy Code:** 301201

This unit will situate learning in the context of the Global City. Projects will be used to investigate scenarios that are common to the contemporary condition of the developing world and the expanding metropolis in various international contexts. Students will either travel to international sites, work with international partners, or work remotely on problems beyond the Australian context. Work integrated learning will be a key feature of the Global Cities studio and will involve relevant members of the professional community to help lead studio investigations. Assessments will include complex urban projects at a large scale, developed using the design, communications, technical, and theoretical studies that have underpinned their education. Assessments will be project-based in real world scenarios and will incorporate sustainable strategies of design. Studies will be supplemented by tuition in structural design and will also be informed by concurrent studies in building science.

Level: Undergraduate Level 3 subject

Pre-requisite(s): ARCH 3004 AND

ARCH 3003

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 3003 Architecture Studio - Rethinking Urbanism (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch3003/>) **Legacy Code:** 301200
This unit will extend the concept of Urban Transformation, where the architect is an agent of progress and change in the built environment. Students will refine their use of architectural design as a medium for speculation and advocacy in the public realm and in daily life of the city. Rethinking Urbanism will investigate architecture and civic space at the scale of public projects. Students will use various models of three-dimensional representation for communication and experimentation with new ways of building the urban fabric. Assessments will be project-based in real world scenarios and will incorporate sustainable strategies of design.

Level: Undergraduate Level 3 subject

Pre-requisite(s): ARCH 2001 AND ARCH 2002

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 3004 Architecture Studio - Rethinking the Sub-urban (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch3004/>) **Legacy Code:** 301199
This unit will introduce the concept of Sub-urban Transformation, where the architect is an agent of progress and change in the built environment. Students will learn to use architectural design techniques as a medium for speculation and advocacy in the public realm and in daily life of the city. Rethinking the Sub-urban will investigate domesticity at the scale of residential projects and communities. Students will be concurrently trained in the use of Building Information Modelling (BIM) as a means to develop project work and collaborate as they explore new ways of building the suburban fabric. Assessments will be project-based in real world scenarios and will incorporate sustainable strategies of design.

Level: Undergraduate Level 3 subject

Pre-requisite(s): ARCH 2001 AND ARCH 2002

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 3005 Architecture Studio - The Infrastructural (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch3005/>) **Legacy Code:** 301202
This unit situates learning in the context of the major urban public projects that sit at the intersection of architecture, infrastructure, and urban design and which highlight the pressure of population growth, climate change, or other significant demographic, economic, political, or ecological transformations. Work integrated learning is a key feature of the Rethinking Infrastructure studio which involve relevant members of the professional community to help lead studio investigations and/or embed students in professional practices. Projects include architectural responses to complex urban and infrastructural projects at a large scale such as transit oriented development, high density housing, landscape urbanism. Students develop professional practice skills on these real world projects and incorporate sustainable strategies of design as well as learning skills in advocacy, entrepreneurship, and professional readiness.

Level: Undergraduate Level 3 subject

Pre-requisite(s): ARCH 3004 OR ARCH 3003

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 3006 Urban Design (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch3006/>) **Legacy Code:** 102070
The unit aims to provide students with an understanding of the nature, role and relevance of urban design. It will examine the issue of urban design at both the micro and macro scale. It also aims to promote awareness of, and sensitivity to, design considerations, and to enable students to critically evaluate urban spaces and places. A key feature of the course will be the development of the graphical communication skills of students.

Level: Undergraduate Level 3 subject

Equivalent Subjects: ARCH 3001 - An Introduction to Urban Design LGYA 1333 - Local Planning

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 4001 Architecture Studio: Urban Architecture (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch4001/>) **Legacy Code:** 301316
This unit will introduce students to urban architecture with complex brief requirements, site conditions and technological considerations. Emphasis is on design resolution considering historical, geographical and social aspects. Experimentation at various theoretical levels is expected and students are encouraged to deliver ambitious and imaginative architectural responses.

Level: Undergraduate Level 4 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7001 Developing Sustainable Places (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7001/>) **Legacy Code:** 101636
This unit provides an understanding of environmental, economic and social issues arising from the effects of urban development within city regions and examines the relationship between sustainable development and metropolitan planning in the Australian and global context. It focuses on the concepts related to sustainability, sustainable development and sustainable cities. It also looks into recent initiatives towards the realisation of sustainable cities.

Level: Postgraduate Coursework Level 7 subject

Equivalent Subjects: LGYA 1340 - Land Use Strategy Design LGYA 1294 - Urban Challenges Developing Sustainable Places

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7002 Heritage and Planning (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7002/>) **Legacy Code:** 102069
This unit explores the values behind, and practicalities regarding, heritage and planning, from federal and state perspectives in Australia. With a specific focus on Sydney, the unit explores how planning applications, within the urban development sphere, impact upon heritage assets, and how these impacts are mitigated through heritage planning legislation. The unit asks students to step into the shoes of heritage planning professionals and to identify and research a heritage asset that is to be impacted by a potential planning proposal and then to design an appropriate mitigation response within the bounds of relevant heritage legislation.

Level: Postgraduate Coursework Level 7 subject

Equivalent Subjects: ARCH 3001 - Introduction to Urban Design

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7003 Managing Cities: History and Theory (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7003/>) **Legacy Code:** 101633

This unit concerns philosophical thought and critical thinking in public planning. It develops an understanding of planning theories and examines past and present trends in this area. It reviews the theoretical frameworks for an insight into planning processes and analyses the economic, spatial and socio-political dimensions of activities involved.

Level: Postgraduate Coursework Level 7 subject

Equivalent Subjects: LGYA 1293 - Metropolitan Structures Cities in Transformation

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7004 Planning and Development Control (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7004/>) **Legacy Code:** 300708

This unit describes the general planning issues relevant to developments in rural and urban areas. The content covers the factors important in determining the allocation and use of land and resources together with the contributions of development to the built and natural environment. Topics include: urban and rural design issues; the impact of the 3 tiers of Government process on development control, and the legal, political and technical issues relevant to impact assessments. Particular attention will be paid to the role of the private sector in developing controls, self-regulation and appeal processes. Planning in both the micro and macro environments is examined in the context of sustainability, indigenous culture and heritage, private land conservation, community resources and its strategic effects on the recycling of existing land and non-renewable natural resources.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7005 Urban Management Practice: Governance and Power in the City (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7005/>) **Legacy Code:** 101314

Governance is a central but often overlooked issue in Urban Management. What is governance? What are the principles of good governance? What are some of the governance challenges in major metropolitan cities that cover multiple jurisdictions? How do statutory local governments engage with specialist state agencies in fields such as economic development, environmental planning, and infrastructure planning? This unit answers these questions, reviews governance practices in major cities across the world and provides students with knowledge of key governance tools. Students will prepare a research report dealing with a significant urban governance challenge, and provide recommendations about how to implement solutions to that challenge. The central objective of the course is to provide students with a sound framework and set of tools with which to address governance issues.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7006 Urban Planning Placement Project (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7006/>) **Legacy Code:** 102604

This Urban Planning Placement Project unit provides Master of Urban Management and Planning and Master of Planning students with an understanding of the planning/urban management workplace. Students are placed with local planning or urban management employers to work on a variety of planning tasks. Placements are structured for student engagement in professional work in planning. Placement agencies ensure that students are supervised by experienced planners, are mentored through site visits and work on planning projects in a professional capacity. Agreements with supervisors and clear communication lines are set to clarify student engagement and their involvement in meaningful professional tasks that contribute to an authentic learning experience, rather than simply unpaid or irrelevant labour.

Level: Postgraduate Coursework Level 7 subject

Equivalent Subjects: LGYA 1297 - Urban Management Placement Project LGYC 4646 - Urban Management Placement Project

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7007 Advanced Design Communication (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7007/>) **Legacy Code:** 301239

Advanced Design Communication is a core architecture seminar in the Master of Architecture (Urban Transformation) course that will explore contemporary methods of design generation and visualisation, representation techniques, and collaboration tools, including but not limited to digital fabrication, computational and algorithmic design, simulation, virtual and augmented reality, building information modelling, parametric design, and scripting. Students will undertake case studies from the community of practice and precedents in this disciplinary domain, including an investigation of how emerging technologies are used in existing professional settings locally and internationally. Students will develop their own design-based enquiry to apply knowledge and skills acquired in the seminar that result in a project and report of their work.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7008 Integrated Building Technology (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7008/>) **Legacy Code:** 301240

Integrated Building Technology is a core unit in the Master of Architecture (Urban Transformation) course that will introduce students to the range of specialist consultants in structural and civil engineering, mechanical, electrical, communications, and transport systems, fire safety and egress, and environmental systems (acoustics, lighting, thermal) that are required to complete real projects in practice. Students gain an insight into the principles and concepts of each discipline which provides sufficient depth of knowledge and understanding of the role of the architect to meaningfully engage and collaborate with the allied specialists. Understanding how to communicate and document the integration and coordination of systems in a building is developed through exposure to case studies, specialist presentations, and field trips. Students apply concepts introduced in the unit to the design studio project they are concurrently developing in unit Practice Research Studio Housing and demonstrate their understanding of system integration through graphic representation techniques and a design report.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7014 Health, Wellbeing and Place (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7014/>) **Legacy Code:** 102769
 Planning for health and wellbeing is essential for ensuring human flourishing in our cities and regions. This unit investigates geographies of health, wellbeing and place through analysis of physical, mental and environmental health and spaces of wellbeing. Drawing on insights from geography, planning and related disciplines it asks how built environment professionals can create healthy futures through place making. Through local, national and international case studies the unit will explore how cities can be better designed to counter growing lifestyle epidemics, motivate active living and respond to the opportunities of population ageing and challenges of environmental change.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7015 Practice Research Studio Civic (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7015/>) **Legacy Code:** 301382
 Practice Research Studio Civic shall focus upon the research and design of a single, comprehensive architectural project over the duration of the semester through either a civic, residential, or hybrid project type. Students will explore topics related to the broad umbrella of urban transformation and to contemporary architectural practices through the studio work, and will engage with a broad community of professionals, stakeholders, and programmatic conditions. Projects shall be representative of the often-contested intersection of competing interests of the urban environment, where the designer must conduct rigorous analysis and research to inform high-quality design outcomes that are attendant to social, ethical, regulatory, technical, procurement, and environmental issues. Students are expected to develop projects to a high degree of resolution in terms of spatial and experiential quality, technical proficiency, and conceptual rigour, underpinned by theoretical and historical knowledge, and communicated clearly. Projects in the studio will vary in scale, setting, building type, and complexity from year to year, with a thematic emphasis that contributes to the overall research direction of the architecture program at WSU. Students will be expected to engage in the studio with a high degree of individual motivation, resourcefulness, and inquisitiveness as would be expected of professional level studies.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7016 Practice Research Studio Housing (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7016/>) **Legacy Code:** 301383
 Practice Research Studio Housing shall focus upon the research and design of a comprehensive architectural project over the duration of the semester through either a civic, residential, or hybrid project type (as distinct from Practice Research Studio Civic in the preceding semester). Students will explore topics related to the umbrella of urban transformation and to contemporary architectural practices through the studio work, and will engage with a broad community of professionals, stakeholders, and programmatic situations. Projects shall be representative of the often-contested intersection of competing interests of the urban environment, where the designer must conduct rigorous analysis and research to inform high-quality design outcomes that are attendant to social, ethical, regulatory, technical, procurement, and environmental issues. Students will undertake projects that involve international sites, project contexts, programs, or collaborations. Students are expected to develop project work to a high degree of resolution in terms of spatial and experiential quality, demonstrating through clear communication and representation techniques the technical proficiency, conceptual rigour, and theoretical and historical knowledge that support the project outcomes. Projects in the studio will vary in scale, setting, building type, and complexity from year to year, with a thematic emphasis that contributes to the overall research direction of the architecture program at WSU. Students will be expected to engage in the studio with a high degree of individual motivation, resourcefulness, and inquisitiveness as would be expected of professional level studies.

Level: Postgraduate Coursework Level 7 subject

Co-requisite(s): ARCH 7008

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7017 Urban Transformation Studio Local (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7017/>) **Legacy Code:** 301398
 Urban Transformation Studio Local incorporates work integrated learning with a real world design project and expert mentoring giving students' opportunities to implement aspects of professional architectural practice. Students extend their skills in creating a project that includes conducting site analyses, defining the program and designing conceptual models. This requires critical reasoning as well as ethical and aesthetic judgement for designing projects for presentations in concise written, oral and visual professional formats. Through the design process, students combine contemporary urban and architectural theory with architectural practice to create exciting visions of urban environments while integrating technical and legal regulations, and realising ethical obligations.

Level: Postgraduate Coursework Level 7 subject

Pre-requisite(s): ARCH 7015 AND

ARCH 7016 AND
 HUMN 4009 OR
 HUMN 4009 OR
 HUMN 4001 AND
 HUMN 4010 OR
 HUMN 4010 OR
 HUMN 4002

Equivalent Subjects: ARCH 7011- Urban Transformation Thesis Studio 1

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7018 Architectural Professional Practice (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7018/>) **Legacy Code:** 301404
 This unit introduces students to the expectations and the requirements that are needed for a professional practice in Architecture. As such students will require to critically examine a broad range of real life professional, legal, business and ethical challenges that are likely to face in practice and apply critical thinking in order to resolve these problems. The intention here is to assist students in navigating through complex real life challenges and to bring a common sense and real world approach to solving a problem. Transitioning from university to the workplace can be quite daunting thus, the aim here is to allow students to gain the knowledge and skills to make informed decisions but most importantly to build confidence in themselves as they move forward with their career.

Level: Postgraduate Coursework Level 7 subject

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7019 Urban Transformation Studio Global (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7019/>) **Legacy Code:** 301400
 In this high-level, project unit, students apply theory and practice to their urban transformation project relating to Greater Western Sydney region while being mentored in developing ethical and aesthetic judgement, creative imagination, independent and critical reasoning skills. Students learn to present a project design that is well resolved integrating spatial and experiential quality, contextual, cultural, social and environmental considerations, technical proficiency, and conceptual rigour. The design contributes to the students' portfolio of work demonstrating concept, resolution and presentation design skills leading towards ethical architectural practice as well as showcasing a civic project for Australia's greatest megatropolis.

Level: Postgraduate Coursework Level 7 subject

Pre-requisite(s): ARCH 7015 Practice Research Studio Civic and ARCH 7016 Practice Research Studio Housing and (HUMN 4001 Research Design 1 or HUMN 4009 Researcher Development 1 Reading Writing and the Business of Research) and (HUMN 4002 Research Design 2 or HUMN 4010 Researcher Development 2 Proposing and Justifying Research)

Equivalent Subjects: 301242 Urban Transformation Thesis Studio 2

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 7020 Cool Green Cities (10 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch7020/>) **Legacy Code:** 102853
 Climate change, urban expansion and densification result in hotter microclimates and loss of green infrastructure. The increasing frequency and severity of heatwaves, floods and droughts require changes to how we design and retrofit existing neighbourhoods and build new suburbs. Contemporary urban planning and design principles recognise blue and green infrastructure as a 'must have'. Blue and green infrastructure is key to building cool and resilient cities capable of functioning well within the social, environmental and economic challenges of the 21st century. This unit provides knowledge about what it takes to deliver cool green cities. Focusing on practical applications at precinct or suburb scale, it enables students to implement learned principles in their professional practice.

Level: Postgraduate Coursework Level 7 subject

Equivalent Subjects: ARCH 7013 - Green Urbanscapes Bio-physical Functions and Services

Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 9001 HDR Thesis - Urban Research Centre (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch9001/>) **Legacy Code:** 800140
Level: PhD and Research Masters Level 9 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject

ARCH 9002 Higher Degree Research Thesis - Urban Design and Regional Planning (20 Credit Points)

Subject Details (<https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/arch9002/>) **Legacy Code:** 800224
Level: PhD and Research Masters Level 9 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject