

ARCHITECTURE (ARCH)

ARCH 151 Introduction to the Built Environment (3 credits)

General Education: Humanistic and Artistic Ways of Knowing
Introduction to the complexities and wonders of the built environment, and the role of the humanities in successful designs. From the regional landscapes to urban design and architecture, to the intimacy of interiors and dwellings, to place making and space making, student perspectives are broadened on how the built environment is shaped by and contributes to an evolving human story. The built environment is also examined as a product of a multitude of forces that include: place, climate, conservation, culture, economics, beliefs, and aspirations for well-being.

ARCH 154 Introduction to Architectural Graphics (3 credits)

Introduction to architectural graphics; two 1-hour lecture sessions per week, plus two 1-hour studio sessions per week; weekly assigned drawing projects, readings, and sketchbook projects; periodic quizzes. Cooperative: open to WSU degree-seeking students.

ARCH 200 (s) Seminar (1-16 credits)

Credit arranged

ARCH 203 (s) Workshop (1-16 credits)

Credit arranged

ARCH 204 (s) Special Topics (1-16 credits)

Credit arranged

ARCH 243 Media in Architecture (3 credits)

Introduction to techniques for hybridizing manual & digital design tools for workflows relative to the architectural design process; includes virtual modeling, CNC fabrication, 2D/3D printing, manual drafting, manual modeling, various software. Two 75-minute sessions per week; in class lectures and workshops; tools, techniques, and exercises integrated with ARCH 253.

Coreqs: ARCH 254

ARCH 253 Architectural Design I (4 credits)

Introduction to Architectural Design Fundamentals including formal principles, ordering systems, conceptualization, experimentation, design making, & design communication for the resolution of given architectural design problems. Two 3-hour studio sessions per week; course includes lectures, workshops, project development, presentations, and readings.

ARCH 254 Architectural Design II (4 credits)

Cross-listed with IAD 254

Basic integration of principles and concepts for architectural design, both interior & exterior. Two 3-hour studios per week and assigned work.

Prereqs: ARCH 253 or Permission

Coreqs: ARCH 243

ARCH 257 Architectural Design Bootcamp (7 credits)

Intensive introduction to various design processes from concept to schematic to design development. Acquisition of a beginning level of both graphic and architectural design literacy, design thinking strategies, aesthetic awareness. Development of basic design communication skills.

Prereqs: Architecture Permission

ARCH 266 Materials and Methods (3 credits)

Introduce physical and performance characteristics of materials, and concepts, conventions and processes of construction methods. Provide a foundation for subsequent courses in architectural technology and design.

ARCH 299 (s) Directed Study (1-16 credits)

Credit arranged

ARCH 353 Architectural Design III (6 credits)

Development of architectural design process and projects that cultivate an understanding of structures, properties of materials and building tectonics. Emphasis is also placed on precedent analysis, basic code, and site related issues. Three 3-hour studios per week and assigned work; field trips required at student expense outside scheduled hours; some class critique sessions may meet outside scheduled hours.

Prereqs: ARCH 254 or equivalent. Application Required.

ARCH 354 Architectural Design IV (6 credits)

Continued development of architectural projects and design process that cultivate understanding of the properties of materials and building tectonics. Three 3-hour studios per week and assigned work; field trips will be required at student expense outside scheduled hours; some class critique sessions will meet outside scheduled hours.

Prereqs: ARCH 353

ARCH 361 Structural Systems I (3 credits)

Project based introduction to the physical principles that govern statics and strength of materials. Graphical and numerical methods for designing and analyzing structures are used.

Prereqs: PHYS 111, PHYS 111L, MATH 143, ARCH 266

ARCH 362 Structural Systems II (3 credits)

Project based course with focus on the overall building behavior of framing systems. Graphical and numerical methods for designing and analyzing structures are used.

Prereqs: ARCH 361

ARCH 385 Global History of Architecture (3 credits)

A global survey of architecture and urban design from its beginnings through the seventeenth century, considered within the social, cultural, religious, and political contexts that shape it. Recommended Preparation: ARCH 151.

ARCH 386 Global History of Architecture II (3 credits)

A global survey of architecture and urban design from the Enlightenment to the present, considered within the social, cultural, political and technological contexts that shape it.

ARCH 388 Architectural Theory (3 credits)

This course is aimed at familiarizing students with key movements, thinkers, and developments in architectural theory's continued evolution, so that they are prepared to go into the world and produce thoughtful work and well-crafted thought.

Prereqs: ARCH 151

ARCH 400 (s) Seminar (1-16 credits)

Credit arranged

ARCH 403 (s) Workshop (1-16 credits)

Credit arranged

ARCH 404 (s) Special Topics (1-16 credits)

Credit arranged

ARCH 410 Sketching for Architecture (3 credits)

Instruction in intermediate through advanced architectural sketching, painting, and place-recording techniques. A variety of media techniques will be employed, including graphite, charcoal, colored pencil, pen & ink, and watercolor. The majority of work will be completed in class, with additional homework assignments outside class and on field trips. Recommended Preparation: Basic sketching abilities, as developed in ARCH 154 and subsequent architectural design studios.

ARCH 411 Native American Architecture (3 credits)

General Education: American Diversity

Cross-listed with AIST 411

Joint-listed with ARCH 511

An exploration of Native American architecture in North America, including ancient, historic, and contemporary buildings and settlements within their diverse social, cultural, and physical contexts. Additional assignments required for graduate credit. (Spring only)

ARCH 415 Instructional Assistant (1-3 credits, max 6)

Assist instructors in delivering courses including classroom and teaching technology set up, taking roll, and other administrative or logistical tasks. Assistants may also (at instructor direction) work with students on design studio critiques, discussion, or other related activities.

Instructional assistants cannot award or enter grades.

Prereqs: Fourth-year standing in architecture programs

ARCH 416 Social Sustainability in Contemporary Cities (3 credits)

Joint-listed with ARCH 516

Seminar provides an overview of the social dimension of sustainability and its related issues in contemporary cities in the world. Exploration of concepts and strategies of social urban sustainability through case studies to critically evaluate urban governance and policies in both developed and developing countries, and assessment of struggles for social justice and equality. Additional projects/assignments required for graduate credit. Typically Offered: Spring.

ARCH 421 Asia Program Preparation Seminar (2 credits)

Joint-listed with ARCH 521

Seminar course preparing students for summer study abroad program in Asia. This course will introduce architecture in the region, guides of travelling, money management, safety, visa application, and some basic cultural introductions. Also, this class will introduce the academic courses to be undertaken in summer and prepare research data collection. Required for all students enrolled in the Asia program. (Spring only) Typically Offered: Spring.

Prereqs: ARCH 353 or LARC 353 Cooperative: open to WSU degree-seeking students.

ARCH 422 Asia Urbanization Seminar (2 credits)

Joint-listed with ARCH 522

Seminar course focusing on understanding the complicated challenges in today's cities in Asia and the process of urbanization in the region. Typically Offered: Spring.

Prereqs: ARCH 354 or LARC 365

ARCH 423 Cultural & Ethical Issues in Global Architectural Practice (2 credits)

Joint-listed with ARCH 523

Study of the phenomenon of architectural practice under the impact of globalization using the market of China as an example. Focus on the development of model architectural practice in China as well as the associated social and cultural issues of global architectural practice.

Prereqs: ARCH 354 or LARC 365

ARCH 430 Rome Preparatory Seminar (2 credits)

Seminar preparing students for summer study abroad in Rome, Italy. Introduces academic courses to be taken in Rome, and begins research and information-gathering tasks for Design Studio and Rome Design History courses. Also includes practical matters such as travel planning, money, safety, and basic language skills. (Spring only) Cooperative: open to WSU degree-seeking students.

ARCH 431 Rome Design History (3 credits)

Lecture course conducted in Rome, Italy, focused on the essential eras of Roman history related to design (art, architecture, urban planning, etc.): Republican & Imperial Rome; Early Christian Rome; Renaissance & Baroque Rome; the "Third Rome" of the Risorgimento and Mussolini; Contemporary Rome of the late-20th and early-21st Centuries.

Prereqs: ARCH 430

ARCH 454 Architectural Design: Vertical Studio (6 credits, max 12)

General Education: Senior Experience

Joint-listed with ARCH 554

Architectural and/or urban design projects are developed to explore and integrate urban theory sustainable design, construction and environmental control systems technology, experimental design approaches, human and cultural factors, and construction assemblies. Design projects completed individually or in team/collaborative settings encouraged. Three 3-hour studios per week and assigned work. Field trips at student's expense are required and meet outside scheduled hours; some class critique sessions meet outside scheduled hours. Additional projects/assignments required for graduate credit.

Prereqs: ARCH 353 and ARCH 354; or Permission

ARCH 461 Building Assemblies (3 credits)

Advanced building construction with focus on building enclosure systems and assemblies.

Prereqs: ARCH 362, ARCH 463, or Instructor Permission

ARCH 463 Principles of Environmental Building Design (4 credits)

This course emphasizes building practices that regard sustainable architecture as the only viable approach to future architectures. This course teaches the principles of thermal comfort, regional design strategies, and ecological design process with an emphasis on the technical development of architectural assemblies. It places focus on understanding the building envelope in relation to site and climate issues, water conservation, embodied energy, carbon footprint, and thermal performance. The course also touches upon the importance of biomaterials, materials lifecycle assessment, and circular economies, and it introduces the social, economic, and technological factors that lead to unsustainable building practices and the need for climate justice in order to move towards a global vision of sustainability. Typically Offered: Fall.

ARCH 464 Environmental Building Performance (4 credits)

This course introduces the practices, metrics, and tools required for measuring the ecological impacts of architecture. Students will learn effective design strategies for maximizing indoor environmental quality through analyzing acoustics, daylight, thermal comfort, and indoor air quality. The course will cover the energy consumption and lifecycle costs of these design choices. Three 1-hour lectures per week plus independent project development. Typically Offered: Spring.

ARCH 475 Professional Practice (3 credits)

Joint-listed with ARCH 575

Overview of professional standards and practices in the architecture and interior design professions. Including duties and responsibilities in practice (construction documents and contracts, code analysis, ethics, and professional organizations and alliances), project management, office administration, and comprehensive services; specification writing, unit costs, and building estimation. Additional assignments/projects required for graduate credit.

ARCH 483 Urban Theory and Issues (3 credits)

History and theory of city planning and problems associated with urban growth.

ARCH 498 (s) Internship (1-16 credits)

Credit arranged

ARCH 499 (s) Directed Study (1-16 credits)

Credit arranged

ARCH 500 Master's Research and Thesis (1-16 credits)

Credit arranged

ARCH 501 (s) Seminar (1-16 credits)

Credit arranged

ARCH 502 (s) Directed Study (1-16 credits)

Credit arranged

ARCH 503 (s) Workshop (1-16 credits)

Credit arranged

ARCH 504 (s) Special Topics (1-16 credits)

Credit arranged

ARCH 505 Architectural Research Methods (3 credits)

Quantitative and qualitative research designs, procedures, instruments, and techniques for use in architectural research, programming and design.

Prereqs: Grad standing in M. Arch. /M. A. program

ARCH 510 Graduate Project Seminar (3 credits)

Specialized research and program writing in preparation for ARCH 556 as well as schematic design proposals. Prereqs or

Coreqs: ARCH 553

ARCH 511 Native American Architecture (3 credits)

General Education: American Diversity

Joint-listed with AIST 411, ARCH 411

An exploration of Native American architecture in North America, including ancient, historic, and contemporary buildings and settlements within their diverse social, cultural, and physical contexts. Additional assignments required for graduate credit. (Spring only)

ARCH 514 Introduction to Graduate Architecture Research (1 credit)

This class is a discussion-based class aimed at familiarizing new architecture graduate students with possible research directions for their graduate project. Typically Offered: Summer.

ARCH 516 Social Sustainability in Contemporary Cities (3 credits)

Joint-listed with ARCH 416

Seminar provides an overview of the social dimension of sustainability and its related issues in contemporary cities in the world. Exploration of concepts and strategies of social urban sustainability through case studies to critically evaluate urban governance and policies in both developed and developing countries, and assessment of struggles for social justice and equality. Additional projects/assignments required for graduate credit. Typically Offered: Spring.

ARCH 517 Graduate Instructional Assistant (1-3 credits, max 6)

Assist instructors in delivering undergraduate courses including classroom and teaching technology set up, taking roll, and other administrative or logistical tasks. Assistants may also (at instructor direction) work with students on design studio critiques, discussions or other related activities. Graduate Instructional assistants may also contribute to the evaluation and grading process, but final grade is the responsibility of the instructor of record.

Prereqs: Graduate standing in architecture program.

ARCH 520 Architectural Research Methods (3 credits)

Philosophy of research in architecture, research design, data gathering and interpretation, and thesis preparation.

ARCH 521 Asia Program Preparation Seminar (2 credits)

Joint-listed with ARCH 421

Seminar course preparing students for summer study abroad program in Asia. This course will introduce architecture in the region, guides of travelling, money management, safety, visa application, and some basic cultural introductions. Also, this class will introduce the academic courses to be undertaken in summer and prepare research data collection. Required for all students enrolled in the Asia program. (Spring only) Typically Offered: Spring. Cooperative: open to WSU degree-seeking students.

ARCH 522 Asia Urbanization Seminar (2 credits)

Joint-listed with ARCH 422

Seminar course focusing on understanding the complicated challenges in today's cities in Asia and the process of urbanization in the region. Typically Offered: Spring.

ARCH 523 Cultural & Ethical Issues in Global Architectural Practice (2 credits)

Joint-listed with ARCH 423

Study of the phenomenon of architectural practice under the impact of globalization using the market of China as an example. Focus on the development of model architectural practice in China as well as the associated social and cultural issues of global architectural practice.

ARCH 552 Alternate Graduate Design Experience (6 credits)

Independent exploration of specific issues in architecture and/or urban design, including off-site, national or international education or professional experiences, for qualified students. An application, including Independent study plans and credits must be approved by the Department during the semester before the proposed study. May be substituted for ARCH 554.

Prereqs: B. S. Architecture

ARCH 553 Integrated Architectural Design (6 credits)

Integrative design of an architectural project including all phases of the design process with particular emphasis on schematic design and design development. Demonstration of ability to develop spatial details and construction systems concepts in support of design goals. Three 3-hour studios per week and assigned work; field trips required at student expense outside scheduled hours; some class critique sessions will meet outside scheduled hours.

Coreqs: ARCH 568

ARCH 554 Architectural Design: Vertical Studio (6 credits, max 12)

General Education: Senior Experience

Joint-listed with ARCH 454

Architectural and/or urban design projects are developed to explore and integrate urban theory sustainable design, construction and environmental control systems technology, experimental design approaches, human and cultural factors, and construction assemblies. Design projects completed individually or in team/collaborative settings encouraged. Three 3-hour studios per week and assigned work. Field trips at student's expense are required and meet outside scheduled hours; some class critique sessions meet outside scheduled hours. Additional projects/assignments required for graduate credit.

ARCH 556 Graduate Project (6 credits)

Graduate terminal project - a self-directed architectural design study with faculty consultation within a studio context. Students demonstrate their capacity to apply appropriate programming and research methods in pursuit of a focused design topic. The project culminates with a project book prepared by the student.

Prereqs: ARCH 510, ARCH 553, and ARCH 554

ARCH 568 Technical Integration in Design (3 credits)

Strategies for integrating structure, enclosure, services, site, and interior systems in the design and development of an architectural concept.

Prereqs: ARCH 461, ARCH 463, ARCH 464, or equivalent

ARCH 570 Natural Lighting (3 credits)

Natural lighting seminar/workshop including hands-on experience with physical and digital modeling techniques. The course includes a term-long investigation of the nature of Palouse light, and a redesign problem of a real space on-campus or nearby, which will be measured, modeled, redesigned, predicted, redesigned, and evaluated.

ARCH 571 Building Performance Evaluation (3 credits)

This case-study based course focuses on evaluation methods for occupied buildings. A full-range of physical measurement and user surveying techniques are presented and employed on local buildings.

ARCH 574 Building Performance Simulation for Integrated Design (3 credits)

Cross-listed with ME 571

3 credit This course focuses on design decisions that impact energy, thermal, visual and acoustic comfort with a strong emphasis on building simulation tools. This course provides students with the understanding of the nature of building thermal comfort, building envelope behavior, ventilation requirements, indoor air quality, passive cooling systems, energy conservation, and the importance of iterative building simulation in achieving high performance buildings.

ARCH 575 Professional Practice (3 credits)

Joint-listed with ARCH 475

Overview of professional standards and practices in the architecture and interior design professions. Including duties and responsibilities in practice (construction documents and contracts, code analysis, ethics, and professional organizations and alliances), project management, office administration, and comprehensive services; specification writing, unit costs, and building estimation. Additional assignments/projects required for graduate credit.

ARCH 580 British Green Architecture (2 credits)

Preparation for students who will participate in the summer studies abroad program in London, including basic research on green building in the UK, helping plan the itinerary. All logistical preparations for studies abroad will be discussed and students are familiarized with both green approaches to design and British culture. (Spring only) Cooperative: open to WSU degree-seeking students.

ARCH 598 (s) Internship (1-3 credits, max 6)

Work in an architectural office under the supervision of a licensed architect.

Prereqs: Permission

ARCH 599 Non-thesis Master's Research (1-16 credits, max arranged)

Credit arranged. Research not directly related to a thesis or dissertation.

Prereqs: Permission