

AAD COURSE STUDENT LEARNING OUTCOMES

AAD 100 - Introduction to Architectural Design

Students will be able to define the core disciplines of Architecture, Landscape Architecture, and Planning, as well as related design fields.

Students will be able to describe the structure, specialties, and roles within various types of design firms.

Students will be able to explain the educational requirements, licensure processes, and professional pathways in the design professions.

Students will analyze potential career settings, salary ranges, and advancement opportunities for design professionals.

Students will evaluate the role of major professional associations in shaping and supporting the design industry.

AAD 101 - Design with Nature

Students will analyze soil fertility and the natural systems used to mitigate soil erosion.

Students will apply water saving systems to a site and will then analyze the outcomes.

Students will synthesize the elements of vegetation, soils, slope conditions, slope aspect and any alterations caused by nature or by man in the evaluation of existing site conditions.

AAD 125 - Construction Drawings and Detailing

Students will be able to recognize the appropriate construction symbols used in the development of construction drawings and detailing.

Students will be able to analyze typical construction symbols found in context within various construction document sets, detailing exercises that are integral to either residential or commercial building types.

Students will be able to prepare a partial set of construction drawings for a pre-selected project typology.

AAD 180 - Design Foundation I

Students will apply concepts of the Americans with Disabilities Act and how it affects certain aspects of the built environment to selected projects.

Students will apply anthropometry and its applications to the built environment.

Students will identify architectural design theory as it relates to space, form, and context.

Students will problem solve by applying design concepts to selected projects.

AAD 181 - Design Foundation I Discussion

Students will be able to lay out basic designs in two-dimensional media.

Students will be able to build basic design elements using varying 3-D media, such as form core, cardboard and other products.

Students will be able to use design vocabulary applied to professional situations.

Students will be able to design a compliant floor plan using specific elements of the American Disability Act.

Students will be able to apply basic anthropometrics and ergonomics in the design of a cardboard chair.

AAD 198 - Special Topics in AAD

CSLOs are under review.

AAD 201 - History of the Built Environment

Students will be able to identify and describe major architectural styles, urban design strategies, and key structures from the Ancient World through Modern Times across diverse civilizations.

Students will be able to analyze how historical events, cultural values, and philosophical ideas influenced architectural developments in both Western and non-Western societies.

Students will be able to compare and evaluate architectural traditions from different cultures to understand how built environments express identity, power, and cultural diversity.

AAD 202 - Analysis of the Built Environment

Students will be able to analyze and explore the various shapes and structural mass of built forms during history.

Students will be able to synthesize the various designs used throughout history and explain the architectural influences on cultural development.

AAD 203 - History, Theory, and Culture - Architecture of the 20th and 21st Century

Students will be able to analyze the built environment by identifying and explaining the historical, political, social, and theoretical factors that have influenced architectural and urban development from Modernity to the present.

Students will be able to evaluate architectural and urban forms as expressions of power, identity, colonialism, and technology within their historical and theoretical contexts.

Students will be able to interpret and critique key texts, case studies, and spatial evidence to construct well-supported arguments about the meaning and significance of the built environment.

Students will be able to apply comparative and interdisciplinary methods to examine how the built environment has evolved across cultures and time periods, and how those changes reflect broader societal shifts.

AAD 223 - Graphic Software for Arch, Const, Dsgnr, Planners

Students will be able to identify key digital design and graphic software applications used in the architecture profession.

Students will demonstrate proficiency in both 2D and 3D software tools commonly used in architectural practice.

Students will apply appropriate software tools to various stages of the architectural design process.

Students will evaluate the strengths and limitations of different digital applications to select the most effective tool for specific design tasks.

AAD 230 - Design with Climate

Students will be able to develop unique architectural styles using passive solar and sustainable products.

Students will be able to evaluate a building shape for optimum solar gain and environmental sensitivity.

Students will be able to identify passive solar systems for buildings.

AAD 232 - Bioclimatic Design

Students will be able to describe and explain the foundational principles of bioclimatic design and their role in promoting ecological conservation and design resiliency.

Students will be able to analyze site-specific climatic data to inform environmentally responsive design strategies in high desert and alpine contexts.

Students will be able to apply passive design principles such as solar orientation, heat transfer, and passive cooling in early-stage architectural proposals.

Students will be able to evaluate the environmental performance of a design concept using preliminary energy and carbon modeling tools.

AAD 256 - Introduction to Land Use Planning

Students will be able to identify historical land use policies in the United States.

Students will be able to examine case studies pertaining to comprehensive planning, zoning, subdivision, and capital improvement programming land use policies.

Students will be able to apply land use policies to a series of architectural design problems.

AAD 261 - Introduction to Topo Form and Design Technology

Students will be able to identify math formulas used for calculating slope gradients.

Students will be able to calculate various slope gradients to a variety of site and building conditions.

Students will be able to manipulate existing contours to meet pre-determined slope requirements.

AAD 265 - Computer Applications in Architecture I

CSLOs are under review.

AAD 268 - 3-D Presentation Graphics

Students will be able to demonstrate proficiency in using intermediate and advanced tools in 3D modeling and rendering software to develop architectural visualizations.

Students will be able to apply experimental and iterative workflows to explore and refine spatial ideas through digital visualization.

Students will be able to integrate 3D visualizations effectively into design work to enhance communication of design intent.

Students will be able to produce professional-quality renderings and models that meet industry standards for presentation and design communication.

AAD 282 - Fundamentals of Architecture Design II

Students will be able to identify client needs and examine spatial relationships.

Students will be able to create comprehensive architectural designs.

Students will be able to demonstrate problem solving skills on projects encountered in professional practice.

AAD 299 - Architectural Design Transition Camp

Students will be able to recognize the appropriate construction symbols used in the development of construction drawings and details.

Students will be able to analyze typical construction symbols found in various construction document sets.

Students will be able to prepare an analogue set of construction drawings for a pre-selected typology.

Students will be able to identify architectural design theory as it relates to space, form and context.

Students will be able to apply design concepts to very basic problem solving projects as they relate to the fundamentals of design.

Students will be able to layout basic designs in two dimensional media.

Students will be able to build basic design elements using varying 3-D media, such as foam core, cardboard and other products.

Students will be able to synthesize and apply digital drafting platforms in the graphic production of design.

Students will be able to design and modify drawings by integrating the most effective tool from an array of software packages.

Students will be able to design and create a foundational architectural portfolio.

AAD 325 - Construction Documentation

Students will be able to analyze architectural assemblies and detailing relevant to construction processes.

Students will be able to interpret construction documentation including plan views, elevations, cross-sections, and detail drawings with accuracy.

Students will be able to apply drawing conventions and industry standards in architectural documentation.

Students will be able to produce detailed construction drawings and renderings through hands-on exercises demonstrating proficiency.

AAD 350 - Design Studio I

Students will be able to present their projects with basic integration of fundamental building tectonics, including structural principles, material properties, and building systems.

Students will be able to analyze the relationship between building component assembly and spatial/formal architectural outcomes.

Students will be able to apply precedent studies, code requirements, and site-responsive design strategies to develop architectural concepts.

Students will be able to demonstrate engagement with real-world architectural challenges through participation in field trips and critique sessions on real sites.

AAD 351 - Design Studio II

Students will be able to integrate complex structural systems and advanced material technologies into architectural design projects.

Students will be able to develop comprehensive design solutions that address nuanced spatial, formal, and environmental challenges.

Students will be able to conduct in-depth precedent analysis and ensure adherence to regulatory requirements.

Students will be able to apply innovative, site-responsive design strategies tailored to complex programmatic demands.

Students will be able to demonstrate enhanced analytical, creative, and technical competencies through participation in field studies and critical review sessions.

AAD 410 - Professional Practice for B. Arch. I

Students will be able to explain the roles, responsibilities, and professional standards of architects in contemporary practice.

Students will be able to apply professional ethics, regulations, and contract specifications to architectural practice scenarios.

Students will be able to analyze business, staff, and project management strategies relevant to architectural practice.

Students will be able to identify pathways to licensure in the United States and evaluate career opportunities within the architectural profession.

Students will be able to demonstrate comprehensive knowledge of the architect's functions across diverse professional contexts.

AAD 413 - Professional Practice For B. Arch. II

Students will be able to assess professional architectural scenarios to identify appropriate ethical, regulatory, and contractual responses.

Students will be able to develop strategies for managing teams, projects, and business operations within architectural practice.

Students will be able to investigate emerging career pathways and analyze trends in global and technologically integrated architectural practice.

Students will be able to produce professional documentation and presentations that justify design and management decisions in complex practice scenarios.

AAD 416 - Professional Practice for B. Arch. III

Students will be able to apply innovative business models that can improve performance for a successful architectural practice.

Students will be able to evaluate consultants and sub-consultants' construction documents and specifications for coordination and design accuracy.

Students will be able to identify and solve discrepancies related to sub-consultant construction drawings.

AAD 452 - Integrated Design Studio I

Students will be able to assess the cultural, historical, sociopolitical, and geographical factors shaping architectural and urban design in our region.

Students will be able to apply regional identity and place-making principles in the development of large-scale design projects.

Students will be able to integrate architectural form, urban systems, and environmental context into cohesive and responsive design solutions.

Students will be able to develop strategies that demonstrate resource stewardship and resilience to environmental challenges.

Students will be able to communicate and defend design proposals effectively through visual, verbal, and written methods.

AAD 453 - Integrated Design Studio II

Students will be able to analyze sociopolitical, cultural, geographical, and ecological conditions in our region to determine their influence on architectural and urban design.

Students will be able to integrate architectural form, structural and environmental systems, and urban/regional context into coherent and responsive design projects.

Students will be able to design solutions that demonstrate resource stewardship, environmental resilience, and social equity.

Students will be able to evaluate precedent studies and in-depth research to inform design strategies and decision-making.

Students will be able to communicate complex, large-scale design solutions effectively through visual, verbal, and written methods.

AAD 455 - Thesis Design Studio I

Students will be able to assess the viability of design concepts by evaluating multitudes of conditions and contextual factors.

Students will be able to develop research-based design strategies that integrate social, cultural, environmental, and programmatic considerations.

Students will be able to interpret precedent studies to identify relevant design solutions and inform the thesis framework.

Students will be able to produce preliminary design representations, models, and diagrams that communicate conceptual ideas effectively.

Students will be able to justify design decisions in formal critiques, demonstrating the integration of theory, research, and innovation.

AAD 461 - Urban Theory and Design I

Students will be able to explain the fundamental principles of urban design theories and their relevance to individual architectural projects.

Students will be able to analyze historical and contemporary trends in urban design practice.

Students will be able to apply urban design theories to develop functional and context-sensitive community designs.

Students will be able to evaluate contemporary and emerging theories that address future drivers of urban development and functioning.

Students will be able to synthesize theory, precedent studies, and applied design exercises to develop informed design projects.

AAD 462 - Urban Theory and Design II

Students will be able to assess how complex, multi-scalar urban systems influence urban form and the planning of regional strategies.

Students will be able to interpret historical, cultural, and environmental factors to determine their impact on urban design decisions.

Students will be able to implement emerging social, environmental, and technological frameworks in the development of urban design proposals.

Students will be able to develop innovative, contextually responsive urban design solutions that integrate theory, precedent, and iterative design analysis.

AAD 475 - Thesis (Integration)

Students will be able to create advanced visual representations, including drawings, diagrams, 3D models, renderings, and animations, to communicate complex architectural ideas.

Students will be able to apply digital and traditional media techniques to effectively illustrate design development and final thesis outcomes.

Students will be able to evaluate and refine visual materials for clarity, coherence, and professional presentation standards.

Students will be able to present design concepts through visual media to clearly convey intent, rationale, and project decisions to professional audiences.

AAD 480 - Thesis (Research)

Students will be able to formulate a clear and focused research question or design inquiry for the architectural thesis.

Students will be able to analyze precedents, programmatic, social, cultural, and environmental factors to support research-based design decisions.

Students will be able to evaluate research findings to determine their relevance and applicability in informing thesis design decisions.

Students will be able to communicate research results effectively through organized documentation, visualizations, and presentations.

AAD 485 - Thesis Design Studio II

Students will be able to synthesize research findings, conceptual frameworks, and design strategies to advance the independent thesis project.

Students will be able to integrate architectural form, structural systems, environmental performance, materiality, and construction techniques into coherent, technically proficient design solutions.

Students will be able to evaluate and refine designs through iterative development, critical review sessions, and faculty mentorship.

Students will be able to produce comprehensive documentation and presentations that clearly communicate design intentions and project outcomes.

Students will be able to defend design decisions in a formal thesis presentation, demonstrating mastery of analytical, conceptual, and technical aspects of the project.