

ARCHITECTURE

ARC 5040 Introduction to Themed Environments 3 Credits

Grading Scheme: Letter Grade

A historical and theoretical interpretation of the industry is provided through a survey of its peculiar practice, process, guest experience, and legal aspects. Course structure foreshadows following coursework; design, documentation, construction, fabrication, execution, development operations. Students focus their new knowledge to produce an illustrated research project.

ARC 5041 Design and Documentation of Themed Environments 3 Credits

Grading Scheme: Letter Grade

Survey of the interrelated expertise in designing and documenting the "Show Support Environment". It addresses conventions of drawing and the interaction of architecture, landscape, interiors, engineering, codes/standards, products/procurement, and sustainability to support the story and guest experience. Students research the integration of systems in a themed environment.

ARC 5042 Fabrication and Execution for Themed Environments 3 Credits

Grading Scheme: Letter Grade

Introduction to the responsibilities and processes of themed environment design, fabrication and execution. In this project-based course students learn the complex roles, disciplines, risks, strategies, and techniques, while applying them in a full-scale experiential installation.

ARC 5043 Integration Practices for Built Environments 3 Credits

Grading Scheme: Letter Grade

An active immersion into practices of creativity and innovation enhanced through integration. Collaboration, a precondition, is furthered with the application of integration methods; sharing decision-making knowledge. In this project-based learning course, students create individual works, perform group projects, map integrative practices, and measure team performance outcomes.

ARC 5921 Fundamentals of Coding and Computation - Introduction to Computer Programming for Architects 3 Credits

Grading Scheme: Letter Grade

Learn the fundamentals of coding and computation to understand concepts such as variables, conditions, loops, algorithms, and libraries. Then, implement these concepts in design exercises to create hands-on projects using coding to solve design problems.

ARC 6044 Development and Operations for Themed Environments 3 Credits

Grading Scheme: Letter Grade

A focus on legal, business, and operational issues peculiar to themed environment projects and how they impact decisions of owners. Legal topics include intellectual property, contracts, enforceability, and jurisdictions. Business topics include incentives/penalties, financial management. Operations topics include, insurance, liabilities, maintenance and safety. Students gain knowledge behind top level direction.

ARC 6045C Project Development Studio for Themed Environments 6 Credits

Grading Scheme: Letter Grade

A project-based application of integrative thinking methods. Students identify a need which underpins story development, program and specification, and creative process toward meaningful design concepts and projects that meet budget and timeframe constraints. Students iterate and evaluate solutions resulting in project metrics.

ARC 6116 Drawing toward Architecture 1-2 Credits, Max 2 Credits

Grading Scheme: Letter Grade

Freehand drawing skills as generative and analytical architectural methodologies.

ARC 6212 Topics in Phenomena and Architecture 3 Credits, Max 9 Credits

Grading Scheme: Letter Grade

Relationships between the philosophy of phenomenology and specific phenomena and architecture studied. Current and historic examples of theoretical and design applications considered.

ARC 6228 Film and Architecture 3 Credits

Grading Scheme: Letter Grade

Survey of the representation of architecture and urbanism in cinema and an investigation of how discourses of cinema construct urbanism and architecture.

Prerequisite: consent of instructor or DCP majors.

ARC 6241 Advanced Studio I 1-9 Credits, Max 9 Credits

Grading Scheme: Letter Grade

An investigation of architecture as a systematic integration of program, space and tectonic systems to make public places in specific cultural and climatic contexts, culminating in a highly resolved spatial order and material resolution.

ARC 6242 Research Methods 3 Credits

Grading Scheme: Letter Grade

Research Methods

Prerequisite: Required of all graduate students as preparation for thesis.

ARC 6281 Professional Practice 3 Credits

Grading Scheme: Letter Grade

Principles and processes of office practice management, investment and financing, project phases, building cost estimation, contracts.

ARC 6306C Public Interest Design: Contemporary Issues and Practice 3 Credits

Grading Scheme: Letter Grade

An introduction to contemporary issues and practice of Public Interest Design (PID), an interdisciplinary and collaborative field focused on the built environment. The need and potential for PID to address social, economic, and environmental justice issues engages a range of geographies, communities, and project types. Modes of practice and case studies are explored in relationship to benefits and barriers to the practice.

ARC 6311C Building Information Modeling 3 Credits

Grading Scheme: Letter Grade

Building information modeling (BIM) in the context of advanced architectural design development and documentation.

Prerequisite: ARC2180

ARC 6355 Advanced Studio II 6 Credits

Grading Scheme: Letter Grade

Emphasis on architecture, program the experience of place. Introduces emergent paradigms for practice and the built environment as well as speculative methods and procedures.

ARC 6356 Advanced Studio III 6 Credits

Grading Scheme: Letter Grade

Developing design methods for synthesizing special aspects of architectural practice: human behavior and space programming, environmental control and energy use, construction materials and structures, project management, preserving and reusing historic structures, and theoretical and philosophical areas of inquiry.

ARC 6357 Advanced Topics in Architectural Design 3 Credits, Max 6 Credits**Grading Scheme:** Letter Grade

Expanding familiar concepts in the conception and production of architecture. Examines the potential for a program to generate architectonic form, bringing a multidisciplinary approach to historical manifestations.

ARC 6399 Advanced Topics in Urban Design 3 Credits, Max 9 Credits**Grading Scheme:** Letter Grade

Transformations of historic urban form and newly developed urban areas and their cultural, sociological, economic, and technological impact.

ARC 6505 Architectural Structural Systems: Wood, Steel, and Concrete 4 Credits**Grading Scheme:** Letter Grade

Structural components as part of building system. Introduction to typical building components.

Prerequisite: ARC 3503 or equivalent.**ARC 6512 Structural Modeling 3 Credits****Grading Scheme:** Letter Grade

Fundamentals of structural information modeling. Develops the conceptual and theoretical understanding of building information modeling (bim), digital design, and approximate systems analysis and detailing for building structures. Students will learn how to efficiently implement bim to organize, coordinate and communicate information in order to convey data necessary for structural analysis and design. Incorporated are applied projects and case studies related to building design and detailing.

Prerequisite: ARC 3503**ARC 6611 Advanced Topics in Architectural Technology 3 Credits, Max 6 Credits****Grading Scheme:** Letter Grade

Structures, materials, construction systems, or environmental technology. Determining architectural form by available technologies and inventions throughout history.

ARC 6621 Graduate Environmental Technology 2 3 Credits**Grading Scheme:** Letter Grade

Fundamentals of architectural lighting, acoustics, electrical power distribution, and building communications.

Prerequisite: ARC 3610.**ARC 6642 Architectural Acoustic Design Laboratory 3 Credits****Grading Scheme:** Letter Grade

Theories and sciences of architectural acoustics as integral components of an architectural design problem.

Prerequisite: ARC3610 and ARC 4620 or Equivalents**ARC 6643 Architectural Acoustics 3 Credits****Grading Scheme:** Letter Grade

Theory, practice, and application of acoustics in architecture.

ARC 6670 Lighting Design Seminar 3 Credits, Max 6 Credits**Grading Scheme:** Letter Grade

Design problems investigating theoretical, conceptual, and practical applications of illumination systems through speculative and analytical inquiry.

ARC 6680 Architecture Energy and Ecology 3 Credits, Max 6 Credits**Grading Scheme:** Letter Grade

Design challenges investigating theoretical, conceptual, and practical applications of architecture that is responsive to ecology, energy, and resource systems through speculative and analytical inquiry.

ARC 6685 Life Safety, Sanitation, and Plumbing Systems 3 Credits**Grading Scheme:** Letter Grade

Design problems investigating the theory, practice, and applications of fire safety, movement, sanitation, and plumbing systems in architecture.

ARC 6686 LEED for Sustainable Design and Construction 3 Credits**Grading Scheme:** Letter Grade

Focusing on design and construction of high performance buildings, apply green building technologies, and strategies using on campus projects, and understand the economics and market development of building green using green building rating systems with focus on LEED. Successful completion of this course will fulfill the prerequisites for LEED™ Green Associate exam credentials.

ARC 6705 Graduate Architectural History 3 3 Credits**Grading Scheme:** Letter Grade

Examination of key built works from early civilizations, their cultural context, and construction technologies.

Prerequisite: ARC 1702.**ARC 6773 Strains of Modernism 3 Credits, Max 9 Credits****Grading Scheme:** Letter Grade

Examinations of the origins, development and transformations of modernism as known through publications and built work of varying scales.

ARC 6793 Advanced Topics in Regional Architecture 3 Credits, Max 9 Credits**Grading Scheme:** Letter Grade

Critical studies of local, regional, and vernacular buildings and built environments.

ARC 6821 Preservation Problems and Processes 3 Credits**Grading Scheme:** Letter Grade

Preservation in the larger context. Establishing historic districts; procedures and architectural guidelines for their protection.

ARC 6883 Vernacular Architecture & Sustainability 3 Credits**Grading Scheme:** Letter Grade

Investigation of vernacular architecture in the discourse of architectural sustainability, with an emphasis on the way that vernacular architecture has been constructed, represented, and consumed in the environmental histories of architecture.

Prerequisite: consent of instructor or DCP major.**ARC 6911 Architectural Research 1-6 Credits, Max 9 Credits****Grading Scheme:** Letter Grade

Special studies adjusted to individual needs.

ARC 6912 Architectural Research II 1-6 Credits, Max 9 Credits**Grading Scheme:** Letter Grade

Special studies adjusted to individual needs.

ARC 6913 Architectural Research III 1-6 Credits, Max 9 Credits**Grading Scheme:** Letter Grade

Special studies adjusted to individual needs.

ARC 6922 Machine Learning for Architects 3 Credits**Grading Scheme:** Letter Grade

Students will apply state-of-the-art AI and Machine Learning (ML) algorithms in different architectural design processes. They will emphasize AI as a paradigm for critical thinking and idea development, avoiding using AI only for optimization. This course will focus on experimentation and application, fulfilling university requirements to be categorized as "Use Apply AI."

ARC 6923 AI & Ethics in Architecture 3 Credits**Grading Scheme:** Letter Grade

Examines the limitations and opportunities of Bias and Fairness in architecture using AI. It fulfills university requirements to be categorized as "AI Ethics." Students will construct theoretical and philosophical questions related to AI and data-driven algorithms in design and will examine bibliographic works to support their responses. Finally, students will create course syllabi for a design studio, with AI as infrastructure in the curriculum.

ARC 6933 Sustainable Site Design 3 Credits**Grading Scheme:** Letter Grade

Architecture's relationship to landscape environments. Focuses on architecture's interrelationship with the diverse fields of landscape architecture, ecology, and civil engineering.

Prerequisite: must be a graduate student in the College of Design, Construction, and Planning.

ARC 6934 European Approach to Sustainable Design 3 Credits**Grading Scheme:** Letter Grade

Ideas and design strategies used in Europe that might be considered for the United States. Focuses on several countries in Europe that are leaders in sustainable design.

ARC 6940 Supervised Teaching 1-5 Credits, Max 5 Credits**Grading Scheme:** S/U

Supervised Teaching

ARC 6971 Research for Master's Thesis 1-15 Credits**Grading Scheme:** S/U

Research for Master's Thesis

ARC 6979 Master's Research Project 1-10 Credits**Grading Scheme:** Letter Grade

Master's Research Project

LAA 5331 Site Design Methodologies 3 Credits**Grading Scheme:** Letter Grade

Learn, develop, and refine methodologies to effectively evaluate relevant natural, social, and cultural characteristics of a site and its context as an integral part of the planning and design process.

LAA 6231 Landscape Architecture Theory 3 Credits**Grading Scheme:** Letter Grade

Explores theories pertinent to the practice and study of landscape architecture. Aesthetic and cultural principles and values and related ecological aspects. Designated core course.

Prerequisite: consent of instructor. ;

Corequisite: LAA 6656C.

LAA 6322 Project Management for Landscape Architects 4 Credits**Grading Scheme:** Letter Grade

This course is designed to prepare students for professional practice and to provide an understanding of the business of landscape architecture in private and public arenas, and of the basic concepts in leadership and organizational management.

LAA 6342 Landscape Architecture Criticism 3 Credits**Grading Scheme:** Letter Grade

Case studies and readings of theories, models, and processes applicable to landscape architectural planning and design. Emphasizes the issues of perception, preference, and other user concerns. Designated core course.

LAA 6382 Ecological and Environmental Policy 3 Credits**Grading Scheme:** Letter Grade

Survey of major environmental policy and law with particular reference to Florida case studies. Designated core course.

LAA 6525L Advanced Landscape Construction Design 4 Credits**Grading Scheme:** Letter Grade

Development of current communication and production techniques related to professional landscape architectural construction documentation.

LAA 6656C Advanced Landscape Architectural Design 1-6 Credits**Grading Scheme:** Letter Grade

Complex project design. Emphasizes user issues, ecological concerns, and regional and cultural issues; and determination of form for sustainable environments.

LAA 6713 Cultural Landscapes 3 Credits**Grading Scheme:** Letter Grade

Explores the intersection of human and cultural systems as expressed in physical form, with multi-disciplinary explorations of why a landscape looks the way it does, what landscapes "mean", and how they are active agents/indicators in ongoing changes in cultural products, built environments, and society.

LAA 6905 Directed Study 1-3 Credits, Max 9 Credits**Grading Scheme:** Letter Grade

Directed Study

LAA 6931 Water Conservation through Site Design and Green Roofs 3 Credits**Grading Scheme:** Letter Grade

Exploration of the impacts of development on the natural systems of a site, particularly water resources. Mitigation of these impacts through sustainable site planning and design methodologies.

LAA 6935 Gardens of the World 3 Credits**Grading Scheme:** Letter Grade

Explores the garden as a complex expression of human relationships with each other and the larger environment, both physical and cultural.

LAA 6941 Supervised Internship 3 Credits**Grading Scheme:** S/U

Work is to be supervised by a registered landscape architect. Internship is to be accomplished in summer between first and second years or second and third years. Students, after completion, register in the next fall term for credit.

Prerequisite: required for all students who do not document a landscape architectural experience.

LAA 6971 Research for Master's Thesis 2-6 Credits**Grading Scheme:** S/U

Research for Master's Thesis

LAA 6979 Terminal Project 1-6 Credits**Grading Scheme:** S/U

This option, in lieu of thesis, is available for a design project that because of magnitude or design complexity does not adapt to thesis format.