

# ARCHITECTURE (ARC)

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## **ARC 101. Architecture Design I. 6 Credit Hours.**

Introduction to urban and architectural design as an intellectual and aesthetic discipline directed at the analysis, interpretation, synthesis, and transformation of the physical environment. Topics include concept, site analysis, urban form, analysis, building types, use of precedents, technique, and the ability to communicate design ideas.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

## **ARC 102. Architecture Design II. 6 Credit Hours.**

Introduction to the elements of architecture. Architectural response to composition, space, shelter, and setting requirements. Topics include design thinking skills, site analysis, understanding of basic building details, use of precedents, anthropometrics, and human behavior.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

## **ARC 109. Introduction to Architecture. 3 Credit Hours.**

(Includes Design & History) Introduction to architectural ideas and principles including composition, space, form, function, history and methods of exploring architectural and urban design problems. Students will learn the relationship between two dimensional and 3 dimensional spaces through analytical drawing and model making. Course pedagogy includes weekly lectures in history and theory to better inform the design process. This course will encourage intuitive action, rapid visual analysis and interpretation.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

## **ARC 110. Visual Studies. 3 Credit Hours.**

Concurrent with the ARC 109 course, the visual studies course explores Architectural drawing as a means of discovery, exploration, analysis and representation. Coursework begins with freehand drawing, in which students explore and refine their observation and representational skills, followed by an introduction to digital drawing and 3-d fabrication used in the profession today. The students will develop a portfolio in book format that illustrates the body of work produced during the three- week program.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

## **ARC 111. Visual Representation I. 3 Credit Hours.**

An introduction to architectural representation as exploration, selection coordination and acquisition of visual knowledge including analog and digital techniques. Topics include: orthographic and oblique projections, geometric constructions, sketching, shade and shadow, and basic knowledge of digital tools.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

## **ARC 112. Visual Representation II. 3 Credit Hours.**

An intermediate course that continues methods integration introduced in Visual Representation I with an increased focus on three dimensional projections and various digital representation technologies.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

## **ARC 121. Architecture and Culture. 1 Credit Hour.**

Architecture as an intellectual and aesthetic discipline. Focus on design theory, language, typology, image, form, context, and case studies.

Corequisite: ARC 101, 111.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 122. Architecture and Behavior. 1 Credit Hour.**

The course focuses on the study of human behavior and its relationship to the design process. Topics include: cultural diversity, social equity and the application of psychological factors in the design of buildings and their environment.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 141. On-Site Survey of European Architecture and Urbanism. 3-6 Credit Hours.**

On site introduction to architecture and the city with a historical review of European architecture and urban form from the classical to the contemporary. Students travel with faculty to survey selected European architectural and urbanistic precedents at specific locations. Elective course open to all majors; lecture and seminar format.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring & Summer.

**ARC 203. Architecture Design III. 6 Credit Hours.**

The design course focuses on the analysis and design of housing typologies within the context of the city. Emphasis on the production of houses and housing projects. Topics include understanding of the basic elements in the production of human dwellings, research, use of precedents, programming, diagramming, and design.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 204. Architecture Design IV. 6 Credit Hours.**

A design course focused on the design of civic structures and civic spaces with an emphasis on building materials, techniques, and structures as active constituents of architecture design. Focus on orientation, enclosure, low-energy responses, selection, and assembly of construction materials, short and intermediate span structural systems. The studio course introduces issues of diversity and inclusion in the built environment.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 213. Visual Representation III. 3 Credit Hours.**

An advanced representation course that builds on the tools and methods of visual Representation I & II while introducing students to more advanced techniques of final project representation, modeling, and post-digital representation techniques. This course integrates analog and digital techniques with an exploration of selected topics on artificial intelligence. Topics covered include composition, diagramming, research, free-hand sketching, graphic research, analytical drawing, perspective, and the role of final presentations in the overall environment of the studio.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 223. Architecture and the Environment. 1 Credit Hour.**

Architectural response to natural environmental requirements. Focus on climate, control, natural energy use, ecosystems, energy flow, environmental intervention, case studies of vernacular building techniques.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 230. Building Technology I: Materials and Methods. 3 Credit Hours.**

Material characteristics of enclosure and structural systems, case studies in traditional and modern building construction. Topics include properties of building materials: wood, masonry concrete, steel and glass construction techniques; on-site and off-site processes; exterior finishes; assemblies, detailing and basic building code concepts.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 231. Building Technology II: The Elements of Structure. 3 Credit Hours.**

The tectonics and static behavior of the principal elements of building structure. Through an examination of individual elements, the goal is to develop a basis for deciphering structural forms leading towards the ability to compose structural systems. Topics include: Equilibrium, Vertical and Lateral Loads, Codes, Material Behavior, Cable, Arch, Truss, Beam, & Column.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 267. History of Architecture I: Ancient, Medieval and Renaissance. 3 Credit Hours.**

Studies in the history of architecture and urban design. Focus on religious, civic and domestic buildings and their settings, and regional constructional and compositional traditions in the Middle East and the West from prehistory to the 17th century. Corequisite: ARC 203.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 268. History of Architecture II: Baroque through Contemporary. 3 Credit Hours.**

Studies in the history of architecture and urban design. Focus on religious, civic and domestic buildings and their settings, and regional constructional and compositional traditions in the West from the 17th century to the present. Corequisite: ARC 204.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 292. Introduction to Architecture Design I. 3 Credit Hours.**

Survey of the architecture profession and introduction to architecture design for non-architecture majors. Role, opportunities, vocabulary, visual awareness, techniques and procedures of design.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 293. Introduction to Architecture Design II. 3 Credit Hours.**

Continuation of ARC 292 and an introduction to the interactions between architecture and the engineering disciplines for non-architecture majors. Theories of building and site design, technology as an integral component of design, program, site, climate and methodology.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 294. Introduction to the Development of Architecture. 3 Credit Hours.**

Introduction to architecture for non-architecture majors. Vocabulary, themes, principles and processes of design, cultural, social, economic and technological influences demonstrated through historic examples.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 301. Architecture Design. 3 Credit Hours.**

Comprehensive building and site design for students transferring into the architecture program at third year level. Topics include human, environmental, cultural and technological factors.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 305. Architecture Design V. 6 Credit Hours.**

The design course focuses on the production of adaptive reuse projects and other environmental concerns. Topics may include retrofit of buildings and cities, adaptive reuse, historic preservation, environmental interventions, landscape design, and/or explorations of resilience and adaptation of rural and urban environments. Emphasis on human behavior, building resiliency, structures, building materiality, and construction techniques.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 306. Architecture Design VI. 6 Credit Hours.**

The design course focuses on the ability to demonstrate skills associated with making integrated architectural design decisions across multiple systems. Students must display an ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

Only ARCH\_BARCH plan allowed to enroll in course.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 323. On Site Study of Selected Architecture and Urbanism. 3-6 Credit Hours.**

On site study of specific architectural and/or urbanistic precedents at selected locations. Focus on specific period(s) and/or architect(s). Elective course open to all majors.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring & Summer.

**ARC 324. On Site Graphic Analysis of Selected Architecture and Urbanism. 3 Credit Hours.**

On site analysis and illustration of specific architectural and/or urbanistic precedents at selected locations. Diagrams, sketches, and drawings recording, analyzing and evaluating buildings and places. Focus on specific period(s) and/or architect(s). Elective course open to all majors.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring & Summer.

**ARC 362. Environmental Building Systems I. 3 Credit Hours.**

Course content aims to broaden enrolled student's understanding of energy, specifically the agency of energy to act as a design directive for architectural form making, spatial configuration, material selection and the surrounding environmental contexts— natural and constructed. The course will address fundamental design principles associated with site orientation, psychometrics, passive design, active systems, and building envelope and assemblies.

pre-req of ARC 203 completed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 363. Environmental Building Systems II. 3 Credit Hours.**

Directly building on Environmental Building Systems I, the course sets an agenda for the future architectural profession to formulate a more substantial and meaningful role for energy, both consumption and embodiment in the design of our constructed environment. Course content will address fundamental principles associated with natural and constructed lighting systems, passive, and active thermal systems, power generation and distribution, water management, and acoustics in architecture.

pre-requisite of ARC 204 completed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 371. Ancient Architecture. 3 Credit Hours.**

History of architecture and human settlements. Western European prehistory, Egypt, Mesopotamia, Persia, Aegean and Mediterranean, Greece, Rome.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 373. Early Christian, Byzantine, and Medieval Architecture. 3 Credit Hours.**

History of architecture and human settlements. Early Christian and Byzantine architecture in Italy, the Near East, Greece, North Africa, Eastern Europe, Medieval architecture in Western Europe.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 382. Architecture and Culture in Italy. 3 Credit Hours.**

A cultural and historical framework in preparation for participation in the Rome program. A range of topics, including architecture, art, history, cinema, literature and politics presented by University faculty from a variety of disciplines. Required for participation in the Rome Program.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 407. Architecture Design VII. 3-6 Credit Hours.**

Elective design studio course: student and faculty select areas of in-depth study. Topics are broadly defined and vary from semester to semester. ARCHITECTURE MAJORS.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 408. Architecture Design VIII. 3-6 Credit Hours.**

Elective component: student and faculty select areas of in-depth study. Topics are broadly defined and vary from semester to semester.

ARCHITECTURE MAJORS.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 452. Management of Professional Practice. 3 Credit Hours.**

Overview of the practice and the profession, legal and ethical concerns, business types and management practices, traditional and non-traditional practices and services, contracts and contractual relationships.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 475. Colonial Architecture. 3 Credit Hours.**

History of architecture and human settlements. Colonial Architecture from the 16th through the 19th centuries in North and South America, the Caribbean, India and Africa.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 476. 19th and 20th Century Architecture. 3 Credit Hours.**

History of architecture and human settlements. America and Europe during the 19th and 20th centuries; cultural, technological and theoretical development.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 481. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 482. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 483. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 500. Architecture Theory. 3 Credit Hours.**

Architecture and Culture/Architecture and the Environment Survey of primary texts in theory of architecture. Part 1: Focus on design theory, language, identity, tectonics and context. Part 2: Focus on environmental theory, sustainability, and ecosystems.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 501. Architecture Design and Theory I. 6 Credit Hours.**

Cultural, human and environment component and architectural responses to these: Social and aesthetic concepts, architectural psychology, climatic principles, programming analysis and design.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 502. Architecture Design and Theory II. 6 Credit Hours.**

Technology component; materials, structure, and environmental control systems as a framework for architectural design. Construction materials and methods, structural systems, mechanical systems.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 503. Architectural Design and Theory III. 6 Credit Hours.**

Legal and economic component; government and finances as active constituents of architecture design. Zoning regulations, building codes, principles of public health, safety and welfare, market and feasibility studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 504. Architecture Design and Theory I. 6 Credit Hours.**

Cultural, human and environment component and architectural responses to these: Social and aesthetic concepts, architectural psychology, climatic principles, programming analysis and design.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 507. Architecture Design. 6 Credit Hours.**

Elective component: student and faculty select areas of in-depth study. Topics include building types, environment, energy, community design, etc.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 509. Architecture Design IX. 3-6 Credit Hours.**

Elective component: student and faculty select areas of in-depth study. Topics include building types, environment, energy, community design, etc. ARCHITECTURE MAJORS.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 510. Architecture Design X. 3-6 Credit Hours.**

Elective component: student and faculty select areas of in-depth study. Topics include building types, environment, energy, community design, etc. ARCHITECTURE MAJORS.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 511. Visual Representation I. 3 Credit Hours.**

Issues covered in the course will deal with the illustration of ideas in architectural manner. Students are to use the skill of drawing and model-making, either by hand or on the computer, as their new language. Topics will include how to read, understand, and create design drawings, to draw from observations and analyze their subject matter, to be able to distinguish the relevance of a particular drawing and to structure how they present their information. Students will be instructed to properly craft their work in and outside of studio in an effort to see their work evolve and improve.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 512. Advanced Visual Analysis. 3 Credit Hours.**

Drawing as a means of analyzing and recording visual experience. Composition, form, light, color and drawing as a primary device in the mental registration of visual experience.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 513. Advanced Visual Representation. 3 Credit Hours.**

Students will learn to carefully evaluate space, color, depth, hierarchy, balance and scale in all architectural visual representation. The assignments will explore different media as it is used in the profession including but not limited to: diagrams, renderings, plans, elevations, sections, and axonometric. Through lectures and workshops, the course will provide a combination of both theoretical and practical lessons encompassing the fundamentals of architectural visual representation. The course will also include parallel lectures on typography, architectural graphic design, and verbal presentation. The lectures will be given by highly regarded industry professionals who will address the way that students can be aware of and understand typography, verbal presentation, and graphic design fundamentals as it relates to architecture. The class will consist of three parts. Part I introduces students to the fundamentals of 3d modeling and drafting as part of a representation workflow. The exercise will include both urban and building scales. Part II concentrates on understanding and dissecting more complex geometries through advance use of digital parametric software such as Grasshopper. Part III focuses on visual representation based on a studio project with emphasis on graphic techniques for final presentations.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 514. Michelangelo. 3 Credit Hours.**

Drawing as a form of research across mediums to understand historical research and interpretation of Michelangelo's work.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 515. Computer Modeling. 3 Credit Hours.**

Three-dimensional, computer modeling, and rendering. Lecture, problem solving exercises and laboratory.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 516. Architectural Watercolor Renderings. 3 Credit Hours.**

This course will use freehand drawing and watercolor painting as a vehicle to study and record the urban and architectural conditions of Coral Gables and other South Florida sites. Particular emphasis will be placed on the analytical potential of sketches (recording space, light, surfaces and color).

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 517. Construction Documents. 3 Credit Hours.**

Working drawings and specifications. Form, content and role of constituent parts of working drawings and specifications by using case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 518. Documentation of Historic Architecture. 3 Credit Hours.**

Principles of preservation and restoration, research methods, measured drawings, surveying methods, and case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 519. Architecture and Color. 3 Credit Hours.**

This course focuses on the theory and practice of color and its application to architectural design. Topics include color history from Newton through Albrecht, the relationship between color practice in science versus art, and the discipline of color in architecture from the Neoclassical movement through the Modern Movement.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 523. Urban Design Competition. 1-3 Credit Hours.**

Intensive, collaborative urban design project, combining master planning and real estate development expertise, to be submitted to international peer reviewed competition. Project teams are comprised of students from several different degree programs, such as architecture, urban design, real estate development, business, and law.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 524. Selected Topics in Interior Architecture Design. 3 Credit Hours.**

Principles and technical components of interior design. Topics include interior volumetrics, finishes, furnishings and lighting.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 525. Landscape Arch Design I. 3 Credit Hours.**

Analysis and design of landscape spaces. Studies in historical precedent, gardens, parks, plazas, squares, and response to urban and architectural context.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 526. Landscape Arch Design II. 3 Credit Hours.**

Analysis and design of landscape spaces. Topics include ecological principles, landforms and plant materials.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 527. Architecture Photography. 3 Credit Hours.**

Photography with emphasis on architectural subjects. Introduction to visual principles, photographic equipment, materials, and techniques.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 528. Historic Preservation. 3 Credit Hours.**

Basic design principles for the rehabilitation of historic buildings and districts. Evaluating character-defining details; significance analysis; context of setting issues within historic districts; applying the Secretary of the Interior's Standards for rehabilitation.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 529. Research in Design-Methods and Procedures. 3 Credit Hours.**

Application of research methods and procedures to design issues. Historical, descriptive, analytic, experimental research methods; tools for data manipulation and communication.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 531. Building Technology II: Structural Systems. 3 Credit Hours.**

Structural systems: The tectonics, patterns and behavior of the elements of building structures. Topics: Equilibrium, stability, vertical and lateral loads, building envelope and financial considerations.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 532. Building Structures I. 3 Credit Hours.**

The structural behavior of simple frame structures. Topics include techniques to determine basic system layout and preliminary dimensioning of key subsystems and members.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 533. Building Structures II. 3 Credit Hours.**

The structural behavior of complex structures. Topics include prestressed systems, waffle and space trusses, curved structures and longspan buildings.

Prerequisite: ARC 532.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Summer.

**ARC 534. Walking and Drawing the Roman City. 6 Credit Hours.**

This course is an immersive experience ranging from specialized walking tours of the original and founding parts of the ancient Roman City to the drawing of its architecture and urban spaces. The course is organized into two parts delivered simultaneously: Part 1: Walking the Roman City: The purpose of this course is to discover the layers of Rome, combining archaeology with architecture and urban history. The goal is a thorough and direct knowledge of the Roman and Medieval urban landscape, and the way this landscape has sometimes survived until today. Special attention is given to Roman and Medieval building typology, both private and public, and the development of the urban infrastructure (street system, water supply, fortifications, etc.). Strong emphasis is placed upon continuity, use / reuse and transformation of buildings and spaces. Every session a different site is explored relevant to Rome's early urban history during antique and Middle Ages. Materials Required: Notebook, drawing pens & pencils Part 2. Drawing the Roman City: Students will learn to observe and record the urban and architectural conditions of Rome using a variety of drawing types and media. Drawing will be taught as a means of analysis and recording visual experience in terms of shape and relationships, including light, shade, shadow form, perspective, surface qualities, color, and composition. Materials Required: H, HB, B Pencils, sharpening device of your choice, A5 watercolor paper block, watercolor paint, watercolor brushes S, M, L, small rag, eraser, palette with water containers. Recommended Text: Drawings of Rome 1991-2001- T.A. Spain.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**ARC 535. The Other Rome. 3 Credit Hours.**

This course will provide a core of knowledge of the architecture and urban history of The Other Rome, the Rome re-born in the 19th century. The unification of Italy in 1861 will serve as the point of departure and catalyst for the transformation of Rome as it became the new capital of a unified Italy. Special attention will be given to the reshaping of Rome during the period of Fascist rule (1922-45) a period during which new architecture and public projects were built in the name of politics and the Italian Rationalist movement which advocated for the marriage of aesthetics and function. Although much of this work has been explored in terms of its political, architectural, social and cultural significance, very little has been unturned regarding the significance of the interiors. The course will examine the interior spaces of select buildings constructed during the modern and contemporary periods. Lectures and site visits will highlight the discourse between politics, art, architecture and design. Additional themes presented are the diverse artistic currents of modern Italy and their impact on design culture such as Futurism, Valori Plastici, Metaphysical Painting, Magical Realism, Novecentismo and the Scuola Romana.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 536. Piazze D'Italia Town and Square. 3 Credit Hours.**

This course explores the relationship between architecture, art, and the city through and in-depth study of the Italian square. The course will introduce students to relevant examples of Roman squares and a selection of Italian examples. Case Studies include ancient, medieval, renaissance, baroque and neoclassical examples. The class will examine the configuration, size and proportions of squares and their architectural elements, parts, materiality, and urban interrelation with the city.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 537. Rome 1347 - 1764 Shaping City and Territory. 3 Credit Hours.**

This course tracks the emergence and development of a distinct conception of the cosmos—Humanism—and the ways in which architects in Rome participated in shaping the built environment in its image. Students will learn about the understanding of the built environment that consolidated during the rise of Humanism. They will then trace the evolution of a variety of building and spatial typologies from the Black Death of 1347—which brought the Middle Ages to a close—up until the publication of Winckelmann's *The History of Art in Antiquity* in 1764—which formally inaugurated the Neoclassical culture that represented yet another reformulation of the cosmos: the Enlightenment. This course is founded on an understanding of the term 'built environment' that contains city and territory, two inseparable elements of the sanctum within which a social unit actively shapes the physical world it inhabits. This means students will study palaces and villas; plazas and gardens; churches and monasteries; public art and infrastructure. This collection of typological lineages will allow students to question architecture's broader role in—or its capacity to—manifest our most fundamental worldviews in space. Materials Required: Sketchbook (B6 size min.), divider (drawing instrument), 2B pencil, one color pencil of preference.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 538. Interior Architecture Design. 3 Credit Hours.**

Principles and technical components of interior design. Topics include activity, analysis, finishes, furniture, fixture, lighting, and acoustics.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 539. Adaptation to Climate Change. 3 Credit Hours.**

Introduction to the phenomena and related discussion on the topic of climate change. Review of current scientific evidence, tactics for mitigation of emissions and other causal actions, followed by study of the adaptation required by changing conditions. Class assignments include creative proposals for adaptation action.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 540. Tropical Architecture. 3 Credit Hours.**

A discussion of tropical architecture and the theme of tropicalism. Research, analysis and documentation in drawing of selected case studies

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 541. Seminar on Town Design. 3 Credit Hours.**

Introduction to the lexicon of urbanism; analytical presentations of the concepts of: region, town, neighborhood, corridor, district, and building type; inter disciplinary presentations, review, and criticism of current town and urban design projects.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 542. Seminar on Housing. 3 Credit Hours.**

Introduction to domestic building typology; exploration of the concepts of low, medium, and high density housing with attention to social, environmental, and economic issues; presentations of current case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 543. Seminar on Retrofit of Suburbia. 3 Credit Hours.**

Introduction to the critical reconstitution of the city; theory and history of the concepts of revitalization and redevelopment; presentations, review, and criticism of current case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 544. Architecture of Palladio. 3 Credit Hours.**

On site study of the architecture and urbanism of Andrea Palladio. Emphasis on the artistic precedents of the Veneto Region.

**Components:** LEC.

**Grading:** GRD.

**ARC 545. Urban Composition. 3 Credit Hours.**

Survey and analytical review of urban rooms as the vessel of human activity in urban culture. Study of proportional and compositional aspects of urban rooms together with economic, social, and cultural factors. Readings and discussion format.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 546. Studies of Havana. 3 Credit Hours.**

Analysis of the physical structure of a major city and its environments including an exploration of its history and iconographic themes, mapping and building studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 547. Architecture and Urban Identity. 3 Credit Hours.**

Study of the relationship between architecture and urbanism focusing on the ways by which architecture provides urban identity and image of place. Case studies relating monuments, fabric and urban plans to their culture, time and place. Lecture and seminar format.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 548. Seminar in Community Development. 3 Credit Hours.**

Study of the contemporary context for the development of the physical environment. Examination of public, private and third sector implementation of building and community design. Format: guest speakers, readings, discussions, and seminar.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 549. Construction and Project Management. 3 Credit Hours.**

Management of construction projects including legal considerations and techniques of management science applied to construction. Includes engineering methods of cost and time estimating, and exercises in applications of engineering economics, flow charts, tracking progress, construction contracts, indemnity agreements, and network planning techniques including CPM and PERT.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 550. Professional Lecture Series. 3 Credit Hours.**

Exposure to the various professional disciplines in South Florida that make contributions to the design process. Case study analysis and evaluation of current building project, from time of initial formulation through completion, including research, diagrammatic studies, site visits and lectures.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 551. Contemporary Theories of Architecture. 3 Credit Hours.**

Theoretical basis of modern architecture and different present currents and movements. Agrarianism, technism, orthodoxy, brutalism, scientism, revivalism, consumerism, rationalism, classicism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 553. Structural Design Theory. 3 Credit Hours.**

Relationship of structural systems to architectural design. Case studies in theories of structure, form and construction.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 554. Architecture of South Florida. 3 Credit Hours.**

History of architecture and human settlements. Studies of significant architectural landmarks and urban design of the South Florida Region, chronological growth of Miami, Miami Beach, Coral Gables, Key West and Palm Beach.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 555. 18th and 19th Century American Architecture and Architects. 3 Credit Hours.**

The course concentrates on the development of early American architecture, Architects and Urbanism, primarily but not exclusively to 17th, 18th and 19th centuries with particular emphasis on theoretical, technological and cultural developments in America.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 556. Parametric Tectonics. 3 Credit Hours.**

From simulating the nuances of physics to visualizing precise climate data, computational tools are enabling the architect to do more and to think differently. This introductory course to computational design will expose students to a parametric-based approach to architectural making. The course will involve the use of visual scripting tools (Grasshopper for Rhino3D) for iterative design explorations and building performance analysis to both generate and evaluate design outcomes.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 557. Design and Fabrication Techniques. 3-6 Credit Hours.**

Design, construction and detailing of wood and other materials as applied to furnishings and interiors. Workshop includes research, exercises, documentation and a final project.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 558. Theories of Landscape Architecture. 3 Credit Hours.**

Leading theories of landscape architecture which have influenced current considerations of nature, landscape and design, including concerns such as urban heat island effect, climate change resilience, and health impacts of landscape.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 559. Sustainability and LEED Exam Prep. 1-3 Credit Hours.**

Study of U.S. Green Building Council standards for environmental efficacy in building and neighborhood design. Emphasis on fundamental knowledge of green building concepts, including transportation, energy, water and air quality. Includes preparation for LEED Accreditation Exam and registration for exam that provides the credential signifying expertise in green building and a LEED rating.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 560. Contemporary Latin American Architecture. 3 Credit Hours.**

An examination of Contemporary Latin American Architecture and Urbanism from the turn of the 20th Century to the present day. The work of some of the great figures on Latin American Modernism such as Niemeyer and Barragan, to contemporary figures such as Paulo Mendes da Rocha and Isay Weinfeld will be discussed. The influence of the Modern Movement in Europe and Le Corbusier will be reviewed. Large scale City Plans such as Lucio Costa's Plan for Brasilia and Roberto Burle-Marx's designs for Flamengo Park and Copacabana in Rio de Janeiro will be analyzed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 564. Intro to Hotel Design and Development. 1-3 Credit Hours.**

Specialization component: This course will provide an introduction to hotel design and development in a seminar format that brings a variety expertise from guest speakers involved in the design, development, market and operational aspects of hotel and resort development.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 566. Architecture Portfolio. 3 Credit Hours.**

The course focuses on the development and production of an architecture portfolio with emphasis on fundamental techniques in layout, image composition, and other graphical representation skills. Through a series of assignments, students learn to evaluate color, depth, hierarchy, and scale within a layout. While focus is centered on creating a design portfolio, the topic of online presentation, individual brand, and job interviews are addressed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 568. History of Architecture II: Baroque through Contemporary. 3 Credit Hours.**

Studies of the history of architecture and urban design. Focus on religious and secular monuments and their settings, domestic architecture and infrastructure, regional constructional and compositional traditions from the end sixteenth century through to the present. Corequisite: ARC502.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 569. Directed Readings. 3 Credit Hours.**

A structured program of readings and essays organized by the student and his/her graduate supervisor constituting a preparation for graduate research in the student's chosen area of interest.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 570. Modern Architecture. 3 Credit Hours.**

History of architecture, landscape, and city design in the modern era.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 572. Selected Topics in World Architecture. 3 Credit Hours.**

History of architecture and human settlements. Islamic Near East, North Africa, Hindu and Buddhist India, Nepal, S. E. Asia, China, Japan, Pre-Columbian America.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 574. Renaissance Architecture. 3 Credit Hours.**

History of architecture and human settlements. Renaissance and Baroque architecture in Italy, France, Spain and Portugal, Great Britain, Austria, Germany, and neighboring countries.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 577. Roman Neighborhoods. 3 Credit Hours.**

This course is an immersion into the city through the observation and analysis of the distinct neighborhoods of Rome. Each "quartiere" is unique for its urban form, architectural and social qualities, and character. Students will learn about the architectural history of Rome through the lens of these neighborhoods whose buildings display the Ancient, Medieval, Renaissance, Baroque and Modern heritage together. Students will learn of the great transformation of the city following the unification of Italy during the late 19th century. Topics will include Metaphysical and Novecento artistic theories, Rationalism, Post Modernism, and contemporary culture. Class sessions will consist of lectures and walking tours. Students are expected to sketch on site and observe independently as well as during group sessions. Materials Required: 5 x 7 sketchbook, drawing pencils, color rendering media of choice such as: color pencils, pastels, watercolors, bristol paper or watercolor paper. Required readings will be announced in class.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 578. Italian Rationalist Architecture. 3 Credit Hours.**

History of Italian architecture and urban design between 1914 and 1950: cultural, technological, and theoretical developments; relationship between architecture, politics and propaganda; related survey of the period in other countries (France, German, Soviet Union).

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 579. An Introduction to Resilient Building and Community Design. 3 Credit Hours.**

This course introduces students to the relationships between climate, resiliency, architecture and urbanism; building awareness of the growing challenges and opportunities ahead, and the intersections between these disciplines. What does resilience mean in this broader context, and how should escalating stressors and shocks be addressed? Students learn about climate sciences, then research, document, and analyze evolving resilient design strategies, at the scale of buildings, neighborhoods and cities, in the end, applying those lessons to a given case study site; developing a holistic set of resilient design recommendations. During the course, students interact with specialists in the fields of architecture and urban design, as well as related fields, such as engineering, social, marine and environmental sciences, and/or policymakers, to better comprehend first-hand the interwoven scientific, social, environmental, and governmental ramifications to resilient design. Lastly, students learn the mechanics of participatory design methods employed to engage communities in related efforts.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 580. Professional Advancement, Internship + Research (PAIR). 3 Credit Hours.**

Research Component of PAIR program. Student, host office and faculty collaboratively develop a focused, in-depth research project related to the tasks the student is completing as part of the Internship Component of the PAIR program. Application and PAIR committee acceptance required prior to enrollment.

**Components:** RSC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 581. Special Problems. 1-3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 582. Special Problems. 3-6 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 583. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 584. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 585. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 586. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 590. History of Cities. 3 Credit Hours.**

Historical overview of the origin and development of cities around the world. Emphasis on intentional form of settlements (the ideal) as well as response to economic and political imperatives such as trade and defense (the real).

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 592. Cinema and Architecture. 3 Credit Hours.**

The class studies the relationship between architecture and cinema. Lectures, film screenings, and readings, explore the origin and development of filmic space with an emphasis on its relation to the real and poetic image of the city. The class analyzes selected films as they relate to, comment, criticize, and anticipate the development of contemporary concepts of space, urban space, interior space, etc.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 593. Computer Animation. 3 Credit Hours.**

Explores the use of computer animation and advanced visualization techniques in architecture with emphasis on texture and lighting, spatial choreography and storyboarding.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 594. Geographic Information Systems in Urban Design. 3 Credit Hours.**

Exploration of Geographic Information Systems (GIS) in urban design. Principles of GIS and their application to spatial analysis, data management and visualization.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 596. Interactive Multimedia in Design. 3 Credit Hours.**

Integration of text, video, sound, and computer graphics to create an interactive electronic information medium.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 597. Designing for the Internet of Things. 3 Credit Hours.**

This course examines how current research and development in embedded computation bears on architecture, landscape, and urbanism. Students will explore the implications and impact of ubiquitous computing in its potential to change the way we conceive, construct, inhabit and interact with our buildings, landscapes, and cities.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 598. Introduction to Programming for Architects. 3 Credit Hours.**

As digital tools continue to play an increasing role in the Architect's toolkit, it is becoming increasingly important that Architects not only understand how to use and navigate these tools but to customize and adapt them to their specific needs. Learning how to program allows Architects to start to fully utilize the potential in digital tools by maximizing the possibilities in not only 3D modeling and digital fabrication but in responsive architecture, embedded computation and animating spaces contributing to a more dynamic and potentially inter-connected built environment.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 601. Urban Design Studio I. 6 Credit Hours.**

Introduction to urban design principles and techniques, in the master planning of a new community. Emphasis on the sustainability of human settlements within the context of degradation of natural systems and resource depletion; regional environmental and infrastructure systems; transportation and traffic; transit-oriented development; land use, building, and thoroughfare types.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 602. Urban Design Studio II. 6 Credit Hours.**

Design projects focusing on contemporary challenges and goals for existing settlements, including urban and suburban disinvestment and deterioration, urban redevelopment, social equity, resilience and adaptation to climate change, design for healthy communities and active living, and urban agriculture.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 603. Urban Design Studio III. 6 Credit Hours.**

Urban design projects that deploy full range of techniques for regional control of urban growth. Application of advanced technologies, including smart cities, innovations in transportation and traffic engineering, energy generation and conservation, and emissions reduction.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 604. Immersive Architectural Design Studio I. 6 Credit Hours.**

Environments of Exchange. As the first of 5 core studios in the MArch I program, ARC 604 aims to build a strong understanding of architectural fundamentals. Through a series of exercises of increasing complexity, the course presents architecture as a process-based endeavor, and foregrounds the important tools of the architect's craft. Topics include conceptual diagrams, precedent analysis, architectural form and figure, dimensions and space, site, and architecture's agency in facilitating interactions through programming and circulation.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 605. Immersive Architectural Design Studio II. 6 Credit Hours.**

Material Form + Structured Space. This core design studio builds on the processes and skills introduced in ARC604, while shifting focus to the material realities of architecture. Exercises will emphasize the relationship between architectural form and physical materials, and explore how methods of construction inform the design of assemblies. Physical models that convey ideas, test structural behaviors, and validate imagery are shown to be a fundamental part of the design process. The studio also explores the promise and limits of new technologies, including computational design processes and digital fabrication, in the production of architecture.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 606. Great Cities Design Studio. 6 Credit Hours.**

The Great Cities Design Studio operates as a form of design-based critical inquiry into issues of urban design and resilience, and the use / reuse and transformation of buildings and spaces. This studio is conducted on-site in Rome, which serves as the subject of extensive student analysis and observation. Students will discover the layers of Rome, combining archaeology with architecture and urban history. Coursework emphasizes a critical reassessment of the historic urban site relative to questions of program, infrastructure, and cultural changes.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 607. Advanced Architectural Design Studio. 6 Credit Hours.**

Habitation + Housing. This advanced design studio addresses the complex interrelationships of a building, its context, and the defined program of housing. Through precedent research, key readings, typological studies and urban analysis, students will engage a critical discourse on the history and potential futures of architecture for domestic habitation. Exercises will focus on the application of material languages and material assemblies into the construction of buildings, as well as the interaction of buildings with people, climate resources and culture.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 608. Integrated Architecture Design Studio. 3-6 Credit Hours.**

Advanced Design Studio focusing on skills associated with making integrated architectural design decisions across multiple systems. Design decisions within a complex architectural project will focus on the consideration and broad integration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 609. Architecture Design. 3-6 Credit Hours.**

Vertical Studio: student and faculty select areas of in-depth study in housing, resiliency, healthcare, urban design, housing and hospitality, historic preservation etc.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 610. Architecture Design Degree Project. 6 Credit Hours.**

The Architecture Design Degree Project takes one of three forms: 1) an individual design thesis on a topic selected and developed by the student through rigorous research, or 2) a directed design research group or 3), or a Vertical Studio. Individual thesis is an opportunity for each student, working with a faculty advisor, to define an individual position with regard to the discipline of Architecture. In contrast, design research groups are led by faculty, and address relevant architectural questions through the lens of the faculty's areas of expertise. All graduating students will be required to present their Degree Project, comprising research, analysis and creative work, through a juried review and as a book.

**Components:** THI.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 611. Spatial Representation + Architectural Media 1. 3 Credit Hours.**

As the first in a two-module sequence, this course introduces fundamental concepts, methods, and techniques in architectural representation. Exercises are designed to teach students geometric principles, projective systems and associated drawing types, spatial representation, and proficiency in the many tools and media essential to architectural design.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 612. Advanced Visual Analysis. 3 Credit Hours.**

Drawing as a means of analyzing and recording visual experience. Composition, form, light, color and drawing as a primary device in the mental registration of visual experience.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 613. Spatial Representation + Architectural Media 2. 3 Credit Hours.**

As the second in a two-module sequence, this advanced course builds on the methods of spatial representation explored in the prior course. Exercises will focus on advanced geometric modeling, and examine the reciprocity between digital spaces and material realities, through literacy in computational design processes and digital fabrication.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 614. Michelangelo. 3 Credit Hours.**

Drawing as a form of research across mediums to understand historical research and interpretation of Michelangelo's work.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 615. Advanced Architectural Media. 3 Credit Hours.**

This advanced course in digital media will build upon fundamentals of architectural representation and expand to notions of computation, data processing, and mapping. Simultaneously, students will gain fluency through experimental means of representation and digital fabrication techniques within a design workflow.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 616. Architectural Watercolor Renderings. 3 Credit Hours.**

This course will use freehand drawing and watercolor painting as a vehicle to study and record the urban and architectural conditions of Coral Gables and other South Florida sites. Particular emphasis will be placed on the analytical potential of sketches (recording space, light, surfaces and color).

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 617. Construction Documents. 3 Credit Hours.**

Working drawings and specifications. Form, content and role of constituent parts of working drawings and specifications by using case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 618. Documentation of Historic Architecture. 3 Credit Hours.**

Principles of preservation and restoration, research methods, measured drawings, surveying methods, and case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.



**ARC 619. Architecture and Color. 3 Credit Hours.**

This course focuses on the theory and practice of color and its application to architectural design. Topics include color history from Newton through Albrecht, the relationship between color practice in science versus art, and the discipline of color in architecture from the Neoclassical movement through the Modern Movement.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 620. Responsible Architecture. 3 Credit Hours.**

A responsible architecture is one that takes into consideration - and at times challenges - the history, context (urban or otherwise), ecology, sustainability, social equity, and aesthetics of the built environment, as well as the health, joy, and well-being of the people who inhabit it. This course will address architecture from a distinctly human perspective, keeping in mind how we are all inextricably linked to the world around us, both natural and architectural. Moreover, it asks students to examine their architectural thinking and practice in relation to society and to reflect on their experiences as individuals and members of dynamic communities. To focus on sustainability, typology, urbanism, or aesthetics alone would be to negate architecture's rich interconnectedness. The embrace of the arc of responsibility requires this multi-layered responsive approach to achieve a truly inspiring architecture.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 621. Housing, Infrastructure and Transportation. 3 Credit Hours.**

Case studies in sustainable urban design, with a special focus on housing and affordability questions. Survey and assessment of innovations in community design and building. Examples from the late nineteenth century to contemporary practice illuminate environmental, social, and economic goals and impacts in urban design. Emphasis on methodology through the realization of an individual or group research project over the length of the semester.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 622. Urban Design Theory and History of the Modern City. 3 Credit Hours.**

Building and Imag(in)ing the metropolis. Survey of urban theories and projects with emphasis on morphological context, typology and composition (1850-2000). Methods of urban analysis and presentation. Discussion of critical texts about formal and informal urban design.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 623. Urban Design Competition. 1-3 Credit Hours.**

Intensive, collaborative urban design project, combining master planning and real estate development expertise, to be submitted to international peer reviewed competition. Project teams are comprised of students from several different degree programs, such as architecture, urban design, real estate development, business, and law.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 624. Select Topics in Interior Architecture Design. 3 Credit Hours.**

Principles and technical components of interior design. Topics include interior volumetrics, finishes, furnishings and lighting.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 625. Landscape Arch Design I. 3 Credit Hours.**

Analysis and design of landscape spaces. Studies in historical precedent, gardens, parks, plazas, squares, and response to urban and architectural context.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 626. Landscape Arch Design II. 3 Credit Hours.**

Analysis and design of landscape spaces. Topics include ecological principles, landforms and plant materials.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 627. Architecture Photography. 3 Credit Hours.**

Photography with emphasis on architectural subjects. Introduction to visual principles, photographic equipment, materials, and techniques.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 628. Historic Preservation. 3 Credit Hours.**

Basic design principles for the rehabilitation of historic buildings and districts. Evaluating character-defining details; significance analysis; context of setting issues within historic districts; applying the Secretary of the Interior's Standards for rehabilitation.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 629. Research in Design-Methods and Procedures. 3 Credit Hours.**

Application of research methods and procedures to design issues. Historical, descriptive, analytic, experimental research methods; tools for data manipulation and communication.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 630. Building Technology I: Materials and Methods. 3 Credit Hours.**

Material characteristics of enclosure and structural systems, case studies in traditional and modern building construction; Topics include properties of building materials: wood, masonry concrete, steel and glass construction techniques; on-site and off-site processes; exterior finishes, assemblies, detailing and basic building code concepts.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 631. Building Technology II: The Form of Forces. 3 Credit Hours.**

The geometries and forces of funicular structures, axially loaded members and surfaces. In a project-based curriculum. The dualisms of funicular geometries and force polygons are explored through graphic statics as tools for design and techniques of analysis. Topics include: Free-body, Form-finding, Equilibrium, Force polygon, Developable and Non-developable Surfaces.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 632. Structure Pt. I - The Form of Forces in Elements. 3 Credit Hours.**

Introducing the tectonics and statical behavior of the principal elements of building structure the course addresses the fundamentals of loads, materials & the analysis of building elements which resist load through form and vectored force. The objective is to develop a basis for deciphering the flow of forces in structural elements. Topics include equilibrium, loads, codes, material behavior & form-finding.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 633. Structure Pt. II - From Elements to Assemblies. 3 Credit Hours.**

The elements of structure are combined to create assemblies both simple and complex through the analysis of building elements which resist load through section, the principles of sizing and connection. The objective is to develop a basis for composing structural systems. The composition, construction and behavior of frames and assemblies is investigated. Topics include techniques for system layout, preliminary dimensioning & computational design.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 634. The Palazzo in Italian Architecture. 3 Credit Hours.**

Study of the development of the Renaissance and Baroque palazzo in Rome and other important centers of art and culture. Emphasis on the socio-political context.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 635. Historic Italian Urbanism. 3 Credit Hours.**

Study of Italian cities and towns from medieval to contemporary times, including a comparative analysis of history and form.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 636. Italian Gardens. 3 Credit Hours.**

Study of Italian garden design during the Renaissance, Baroque and Mannerist periods. Emphasis on historical and political context.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 637. Research in Rome. 3 Credit Hours.**

An exploration of Roman history, architecture and urban form through lectures, on site study and drawing assignments. Emphasis on chronological and spatial sequence of development.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 638. Interior Architecture Design. 3 Credit Hours.**

Principles and technical components of interior design. Topics include activity, analysis, finishes, furniture, fixture, lighting, and acoustics.

**Components:** LEC.

**Grading:** GRD.

**ARC 639. Adaptation to Climate Change. 3 Credit Hours.**

Introduction to the phenomena and related discussion on the topic of climate change. Review of current scientific evidence, tactics for mitigation of emissions and other causal actions, followed by study of the adaptation required by changing conditions. Class assignments include creative proposals for adaptation action.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 640. Tropical Architecture. 3 Credit Hours.**

A discussion of tropical architecture and the theme of tropicalism. Research, analysis and documentation in drawing of selected case studies

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 641. Seminar on Town Design. 3 Credit Hours.**

Introduction to the lexicon of urbanism; analytical presentations of the concepts of: region, town, neighborhood, corridor, district, and building type; interdisciplinary presentations, review, and criticism of current town and urban design projects.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 642. Seminar on Housing. 3 Credit Hours.**

Introduction to domestic building typology; exploration of the concepts of low, medium, and high density housing with attention to social, environmental, and economic issues; presentations of current case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 643. Seminar on Retrofit of Suburbia. 3 Credit Hours.**

Introduction to the critical reconstitution of the city; theory and history of the concepts of revitalization and redevelopment; presentations, review, and criticism of current case studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 644. The Architecture of Palladio. 3 Credit Hours.**

On site study of the architecture and urbanism of Andrea Palladio. Emphasis on the artistic precedents of the Veneto Region.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 645. Urban Composition. 3 Credit Hours.**

Survey and analytical review of urban rooms as the vessel of human activity in urban culture. Study of proportional and compositional aspects of urban rooms together with economic, social, and cultural factors. Readings and discussion format.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 646. Studies of Havana. 3 Credit Hours.**

Analysis of the physical structure of a major city and its environments including an exploration of its history and iconographic themes, mapping and building studies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 647. Architecture and Urban Identity. 3 Credit Hours.**

Study of the relationship between architecture and urbanism focusing on the ways by which architecture provides urban identity and image of place. Case studies relating monuments, fabric and urban plans to their culture, time and place. Lecture and seminar format.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 648. Seminar in Community Development. 3 Credit Hours.**

Study of the contemporary context for the development of the physical environment. Examination of public, private and third sector implementation of building and community design. Format: guest speakers, readings, discussions, and seminar.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 649. Construction and Project Management. 3 Credit Hours.**

Management of construction projects including legal considerations and techniques of management science applied to construction. Includes engineering methods of cost and time estimating, and exercises in applications of engineering economics, flow charts, tracking progress, construction contracts, indemnity agreements, and network planning techniques including CPM and PERT.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 650. Professional Lecture Series. 3 Credit Hours.**

Real estate transactions and deal structuring from the development perspective. Using the case study method, the course explores the key components and the disciplines needed for successful real estate transactions and projects.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 651. Contemporary Theories of Architecture. 3 Credit Hours.**

Theoretical basis of modern architecture and different present currents and movements. Agrarianism, technism, orthodoxy, brutalism, scientism, revivalism, consumerism, rationalism, classicism.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 652. Management of Professional Practice. 3 Credit Hours.**

Overview of the practice and the profession, legal and ethical concerns, business types and management practices, traditional and non-traditional practices and services, contracts and contractual relationships, disputes and risk management.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 653. Urban Representation + Sketching. 1 Credit Hour.**

Using the city as a real-world testing ground, this course introduces students to problems of spatial representation at scales beyond the architectural object. Techniques including hand-sketching, situationist experience mapping, and photographic collage, are taught through a series of weekly in-class exercises held at different sites throughout the city. These exercises advance a student skillset to enable effective analysis and assessment of urban conditions.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 654. Architecture of South Florida. 3 Credit Hours.**

History of architecture and human settlements. Studies of significant architectural landmarks and urban design of the South Florida Region, chronological growth of Miami, Miami Beach, Coral Gables, Key West and Palm Beach.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 655. 18th and 19th Century American Architecture and Architects. 3 Credit Hours.**

The course concentrates on the development of early American architecture, Architects and Urbanism primarily but not exclusively to 17th, 18th and 19th centuries with particular emphasis on theoretical, technological and cultural developments in America.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 656. Parametric Tectonics. 3 Credit Hours.**

From simulating the nuances of physics to visualizing precise climate data, computational tools are enabling the architect to do more and to think differently. This introductory course to computational design will expose students to a parametric-based approach to architectural making. The course will involve the use of visual scripting tools (Grasshopper for Rhino3D) for iterative design explorations and building performance analysis to both generate and evaluate design outcomes.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 657. Design and Fabrication Techniques. 3-6 Credit Hours.**

Design, construction and detailing of wood and other materials as applied to furnishings and interiors. Workshop includes research, exercises, documentation and a final project.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 658. Theories of Landscape Architecture. 3 Credit Hours.**

Leading theories of landscape architecture which have influenced current considerations of nature, landscape and design, including concerns such as urban heat island effect, climate change resilience, and health impacts of landscape.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 659. Sustainability and LEED Exam Prep. 1-3 Credit Hours.**

Study of U.S. Green Building Council standards for environmental efficacy in building and neighborhood design. Emphasis on fundamental knowledge of green building concepts, including transportation, energy, water and air quality. Includes preparation for LEED Accreditation Exam and registration for exam that provides the credential signifying expertise in green building and a LEED rating.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 660. Contemporary Latin American Architecture. 3 Credit Hours.**

An examination of Contemporary Latin American Architecture and Urbanism from the turn of the 20th Century to the present day. The work of some of the great figures on Latin American Modernism such as Niemeyer and Barragan, to contemporary figures such as Paulo Mendes da Rocha and Isay Weinfeld will be discussed. The influence of the Modern Movement in Europe and Le Corbusier will be reviewed. Large scale City Plans such as Lucio Costa's Plan for Brasilia and Roberto Burle-Marx's designs for Flamengo Park and Copacabana in Rio de Janeiro will be analyzed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 661. Building Technology I: Materials and Methods.. 3 Credit Hours.**

Material characteristics of enclosure and structural systems, case studies in traditional and modern building construction. Topics include properties of building materials: wood, masonry concrete, steel and glass construction techniques; on-site and off-site processes; exterior finishes; assemblies, detailing and basic building code concepts.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 662. Environmental Building Systems I. 3 Credit Hours.**

Course content aims to broaden enrolled student's understanding of energy, specifically the agency of energy to act as a design directive for architectural form making, spatial configuration, material selection and the surrounding environmental contexts— natural and constructed. The course will address fundamental design principles associated with site orientation, psychometrics, passive design, active systems, and building envelope and assemblies.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 663. Environmental Building Systems II. 3 Credit Hours.**

Directly building on Environmental Building Systems I, the course sets an agenda for the future architectural profession to formulate a more substantial and meaningful role for energy, both consumption and embodiment in the design of our constructed environment. Course content will address fundamental principles associated with natural and constructed lighting systems, passive, and active thermal systems, power generation and distribution, water management, and acoustics in architecture.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 664. Introduction to Hotel Design and Development. 1-3 Credit Hours.**

This course will provide an introduction to hotel design and development in a seminar format that brings a variety expertise from guest speakers involved in the design, development, market and operational aspects of hotel and resort development.

**Components:** SEM.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 665. Parametric Design + Computation. 3 Credit Hours.**

An introduction to the possibilities afforded by advanced computational tools for architectural design, coupled with a rigorous exploration of their limits. The course consists of weekly and bi-weekly exercises, designed to introduce key concepts and skills through calibrated design problems. Major topics include parametric modeling and its associated epistemology, the contrasting logics of solver-based and genetic algorithms, and the emergence of simulative environments.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 666. Architecture Portfolio. 3 Credit Hours.**

The course focuses on the development and production of an architecture portfolio with emphasis on fundamental techniques in layout, image composition, and other graphical representation skills. Through a series of assignments, students learn to evaluate color, depth, hierarchy, and scale within a layout. While focus is centered on creating a design portfolio, the topic of online presentation, individual brand, and job interviews are addressed.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 667. History of Architecture. 3 Credit Hours.**

Studies in the history of architecture and urban design. Focus on religious, civic and domestic buildings and their settings, and regional constructional and compositional traditions in the Middle East and the West from prehistory to the 17th century.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 668. Diverse Histories of Architecture 20C. + Beyond. 3 Credit Hours.**

This course is an introduction to non-Western and non-Eurocentric built environments, both historical and contemporary. It unpacks how the discipline of architecture is conditioned by larger societal forces including questions of race, gender, politics, economy and identity, through non-linear survey and case studies that reference both current and historical architectural discourse. Interdisciplinary lenses including political theory, sociology, and black studies, among others, prompt critical reflection on a range of topics such as urban renewal and gentrification, racism, migration, and colonialism. Through analyses of the ethnographic and vernacular roots of architectural form, the course offers a vastly expanded architectural canon, including works originating in non-Judeo-Christian, West African, Islamic, and Meso-American civilizations.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 669. Directed Readings. 3 Credit Hours.**

A structured program of readings and essays organized by the student and his/her graduate supervisor constituting a preparation for graduate research in the student's chosen area of interest.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 670. Modern Architecture. 3 Credit Hours.**

History of architecture, landscape, and city design in the modern era.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 671. Ancient Architecture. 3 Credit Hours.**

History of architecture and human settlements. Western European prehistory, Egypt, Mesopotamia, Persia, Aegean and Mediterranean, Greece, Rome.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 672. Selected Topics in World Architecture. 3 Credit Hours.**

History of architecture and human settlements. Islamic Near East, North Africa, Hindu and Buddhist India, Nepal, S. E. Asia, China, Japan, Pre-Columbian America.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 673. Early Christian, Byzantine, and Medieval Architecture. 3 Credit Hours.**

History of architecture and human settlements. Early Christian and Byzantine architecture in Italy, the Near East, Greece, North Africa, Eastern Europe, Medieval architecture in Western Europe.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 674. Renaissance Architecture. 3 Credit Hours.**

History of architecture and human settlements. Renaissance and Baroque architecture in Italy, France, Spain and Portugal, Great Britain, Austria, Germany, and neighboring countries.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 675. Colonial Architecture. 3 Credit Hours.**

History of architecture and human settlements. Iberian and British Colonies from the 16th through the 19th centuries: North and South America, Caribbean, India and Africa.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 676. 19th and 20th Century Architecture. 3 Credit Hours.**

History of architecture and human settlements. America and Europe during the 19th and 20th centuries; cultural, technological and theoretical development.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 677. The Architecture of Alvar Aalto. 3 Credit Hours.**

An examination of the architecture of Alvar Aalto through the analysis of selected buildings.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 678. Italian Rationalist Architecture. 3 Credit Hours.**

History of Italian architecture and urban design between 1914 and 1950: cultural, technological, and theoretical developments; relationship between architecture, politics and propaganda; related survey of the period in other countries (France, Germany, Soviet Union).

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Offered by Announcement Only.

**ARC 679. An Introduction to Resilient Building and Community Design. 3 Credit Hours.**

This course introduces students to the relationships between climate, resiliency, architecture and urbanism; building awareness of the growing challenges and opportunities ahead, and the intersections between these disciplines. What does resilience mean in this broader context, and how should escalating stressors and shocks be addressed? Students learn about climate sciences, then research, document, and analyze evolving resilient design strategies, at the scale of buildings, neighborhoods and cities, in the end, applying those lessons to a given case study site; developing a holistic set of resilient design recommendations. During the course, students interact with specialists in the fields of architecture and urban design, as well as related fields, such as engineering, social, marine and environmental sciences, and/or policymakers, to better comprehend first-hand the interwoven scientific, social, environmental, and governmental ramifications to resilient design. Lastly, students learn the mechanics of participatory design methods employed to engage communities in related efforts.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 680. Professional Advancement, Internship + Research (PAIR). 3 Credit Hours.**

Research Component of PAIR program. Student, host office and faculty collaboratively develop a focused, in-depth research project related to the tasks the student is completing as part of the Internship Component of the PAIR program. Application and PAIR committee acceptance required prior to enrollment.

**Components:** RSC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 681. Special Problems. 1-3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 682. Special Problems. 3-6 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 683. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 684. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 685. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 686. Special Problems. 3 Credit Hours.**

Group or individual investigations of significant architectural issues, offered by special arrangement only.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 688. Professional Portfolio. 1 Credit Hour.**

This course guides students in the ongoing process of creating an individual portfolio, with emphasis on how to conceive, design, compile and revise one successfully. Throughout architectural education, this portfolio serves as the primary medium for student self-assessment, and eventually becomes the dominant component in professional job applications. Topics covered include identity, layout, composition, graphics and representation, print and digital formatting.

**Components:** STU.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 689. Profiles in Practice. 1 Credit Hour.**

An introduction to the architectural profession through an analysis of the diverse practices participating in ongoing U-SoA lecture series. Prior to each lecture, students research the mission, scale, structure, project types, methods and biases of the lecturers' professional practices. Post-lecture analysis provides a forum to discuss the range of professional practices in Architecture.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 690. History of Cities. 3 Credit Hours.**

Historical overview of the origin and development of cities around the world. Emphasis on intentional form of settlements (the ideal) as well as response to economic and political imperatives such as trade and defense (the real).

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.



**ARC 691. Analysis and History of Urban Form. 3 Credit Hours.**

The course examines the emergence and development of the city, with a specific emphasis on how urban form is created, transformed, and invested with social, cultural, and political meaning through monumental structures and specific housing typologies. Taught in situ—both through site visits and world-focused lectures—students develop a precise understanding of global traditions of urban form. Topics range from streets, public places and the design of building frontages to urban silhouettes, edges and infrastructures.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Summer.

**ARC 692. Cinema and Architecture. 3 Credit Hours.**

The class studies the relationship between architecture and cinema. Lectures, film screenings, and readings, explore the origin and development of filmic space with an emphasis on its relation to the real and poetic image of the city. The class analyzes selected films as they relate to, comment, criticize, and anticipate the development of contemporary concepts of space, urban space, interior space, etc.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall & Spring.

**ARC 693. Computer Animation. 3 Credit Hours.**

Explores the use of computer animation and advanced visualization techniques in architecture with emphasis on texture and lighting, spatial choreography and story-boarding.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 694. Geographic Information Systems in Urban Design. 0-3 Credit Hours.**

Exploration of Geographic Information Systems (GIS) in urban design. Principles of GIS and their application to spatial analysis, data management and visualization.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 695. Interactive Multimedia in Design. 3 Credit Hours.**

Integration of text, video, sound, and computer graphics to create an interactive electronic information medium.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 696. Advanced Topics. 3 Credit Hours.**

Subject matter offerings based upon student demand and availability of faculty. Subtitles describing the topics will be shown in the printed class schedule, following the title "Advanced Topics".

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 697. Designing for the Internet of Things. 3 Credit Hours.**

This course examines how current research and development in embedded computation bears on architecture, landscape, and urbanism. Students will explore the implications and impact of ubiquitous computing in its potential to change the way we conceive, construct, inhabit and interact with our buildings, landscapes, and cities.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall.

**ARC 698. Introduction to Programming for Architects. 3 Credit Hours.**

As digital tools continue to play an increasing role in the Architect's toolkit, it is becoming increasingly important that Architects not only understand how to use and navigate these tools but to customize and adapt them to their specific needs. Learning how to program allows Architects to start to fully utilize the potential in digital tools by maximizing the possibilities in not only 3D modeling and digital fabrication but in responsive architecture, embedded computation and animating spaces contributing to a more dynamic and potentially inter-connected built environment.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Spring.

**ARC 699. Directed Research. 3 Credit Hours.**

This course presents design research processes fundamental to defining clear problems and architectural proposals. Through a series of exercises, presentations and conversations, students will learn to articulate and defend their interests and positions. Exercises will include literature research, precedent analysis, statement writing, site documentation, programming and diagramming. These avenues of inquiry will serve to provide both historical and critical context to students' interests, connect them to relevant discourse, and help them clarify their own visions. This work will be presented in a juried review and collected as a booklet. For students moving on to ARC 610, these outcomes will directly serve their Design Degree Projects, either as a conventional Individual Thesis or as part of a Design Research Group. Other students will be expected to develop a similar proposition, positioning themselves professionally and academically within the field of Architecture.

**Components:** RSC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 701. Masters Final Project. 6 Credit Hours.**

Individually supervised projects. Required as a 6 credit course for all Master of Architecture in Computing students electing a final project.

**Components:** THI.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 720. Research in Residence. 1 Credit Hour.**

Used to establish research in residence for the thesis or final project for the master's degree after the student has enrolled for the permissible cumulative total in ARC 699 or ARC 710 (usually six credits). Credit not granted. May be regarded as full-time residence.

**Components:** LEC.

**Grading:** GRD.

**Typically Offered:** Fall, Spring, & Summer.

**ARC 810. Master's Thesis. 1-6 Credit Hours.**

The student working on his/her master's thesis enrolls for credit, in most departments not to exceed six, as determined by his/her advisor. Credit is not awarded until the thesis has been accepted.

**Components:** THE.

**Grading:** SUS.

**Typically Offered:** Fall, Spring, & Summer.