

ARCHITECTURE (ARC)

ARC 101. Architecture Design I. 6 Credit Hours.

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

Components: STU.

Grading: GRD.

Typically Offered: Fall.

ARC 102. Architecture Design II. 6 Credit Hours.

Architectural response to shelter, space and setting requirements. Topics include design thinking skills, programming, site analysis, use of precedents and anthropometrics and human behavior.

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.

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.

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 course focuses on the design of urban form and its relationship to the natural environment. Topics include: site analysis and design, context, climate, access and circulation and landscape.

Components: STU.

Grading: GRD.

Typically Offered: Fall.

ARC 204. Architecture Design IV. 6 Credit Hours.

The design course focuses on building materials, techniques and structure 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.

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 three dimensional modeling that integrates analog and digital techniques. Topics covered include; composition, diagramming, research and analytical drawing, perspective, and the integration of digital tools.

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: Structural Systems. 3 Credit Hours.

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

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

ARC 267. History of Architecture I: Ancient, Medieval and Renaissance. 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 prehistory to the end of the sixteenth century. Corequisite: ARC 203.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

ARC 268. 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 of the sixteenth century through 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 analysis and design of housing typologies within the context of the city. Topics include: programming, research and the integrated evaluation and design making in the design process.

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.

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.

Environmental and Safety Systems. Topics include mechanical - HVAC and conveyors; building envelope and assemblies, plumbing - fixtures and pipes; safety systems - fire safety and emergency and signal systems.

pre-req of ARC 203 completed.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

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

Principles and applications of light and acoustics. Topics include natural and artificial light - planning for sunlight, problems and solutions for interior and exterior illumination; sound - properties, problems and solutions in new and existing spaces. Principles and applications of electrical equipment and wiring design.

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. 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 535. 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 536. 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 537. 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 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 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 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.

ARC 577. 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 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, Germany, 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 story-boarding.

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. Architecture Design and Theory I. 6 Credit Hours.

The inaugural design studio focuses on the role of architectural design as an integrative discipline. Using Miami as a laboratory and drawing from natural specimens, the studio will examine the relationship between nature, landscape and the built environment. It will use research and analysis, design thinking skills, ordering systems, site design, materials, methods, structure, light, space, and tectonics as a means of developing a meaningful design process. Components: STU.

Components: STU.

Grading: GRD.

Typically Offered: Fall.

ARC 605. Architecture Design and Theory II. 6 Credit Hours.

This introductory design studio focuses on the role of architectural design as a responsive discipline. The studio will look at how architectural form is informed by thoughtful consideration of materials and methods of construction, as well as programming and context. Situated in an urban environment rich in material, stylistic and typological history, the studio will challenge students to develop a careful reading of place while responding to urban context, topography, and other site requirements. By considering issues of precedent, composition, display, and identity, it will examine the production of meaning in architecture.

Components: STU.

Grading: GRD.

Typically Offered: Spring.

ARC 606. Architectural Design and Theory III. 6 Credit Hours.

The Rome Design Studio operates as a form of design-based critical inquiry into issues of urban design, housing, and the use / reuse and transformation of buildings and spaces. Drawing will be explored as a means of analysis, in order to observe and record the urban and architectural conditions of Rome. 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. Architecture Design and Theory IV. 6 Credit Hours.

Advanced Design Studio based course addressing more complex and ambitious topics related with the built environment, the ability to prepare and solve a program through design, materials, technique, technology, social human centered aspects of architecture, structure, architecture as light and space, site and context and environmental issues.

Components: STU.

Grading: GRD.

Typically Offered: Fall.

ARC 608. Architecture Design. 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: Fall, Spring, & Summer.

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 studio offers two options: 1) an independent design research project (design thesis) on a topic selected and developed by the student, or 2) a graduate research studio. Design Thesis is an opportunity for each student, working with a faculty advisor, to define an individual position with regard to the discipline of Architecture. The graduate research studio, led by a faculty member, will investigate relevant or thematic issues of architecture. All graduating students will be required to present their Degree Project, comprising research, analysis and creative work, as a book.

Components: THI.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

ARC 611. Visual Representation. 3 Credit Hours.

The first in a two-semester sequence of required core courses that introduces students to various architectural media and methods of representation. This course embraces design problem solving through thinking and communicating visually. 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 create sketches, diagrams, drawings and models, using analogue and digital media, using these skills as their new language. Students will be introduced to basic types of representation and layout techniques allowing them to communicate visually and effectively defend their design solutions. In addition to visual presentations techniques, the course will focus on verbal presentation skills.

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. Advanced Visual Representation. 3 Credit Hours.

The second in a two-semester sequence of required core courses will focus on advanced issues of digital parametric modeling, post-production graphic design and animation. Through lectures and workshops, the course will provide a combination of both theoretical and practical lessons encompassing the fundamentals of architectural visual representation, including representation of the built environment through lenses of digital media and advanced visualization techniques. Students will learn to evaluate space, color, depth, typography, hierarchy, balance and scale in all architectural visual representation.

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 Visualization Techniques. 3 Credit Hours.

Beginning at the urban scale, students will engage with the concept of mapping and the graphical representation of an urban environment. This will be done through site analysis and investigation of existing conditions for the neighborhood of Miami Beach, Fl. After the urban analysis, students will transition into the building scale and analyze a "Lifeguard House" in Miami Beach. Students will be asked to rethink and redesign the lifeguard house using Rhino 30. Each student will produce drawings including elevations, plans, sections, and exploded axonometric of their new design. Lastly, students will create a physical model using the laser cutter.

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. 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.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

ARC 622. Urban Design History and Theory. 3 Credit Hours.

Part I: Survey of housing theories and projects with emphasis on morphological context, typology and composition - focus on topics of modernity. Part II: Introduction to thoroughfare design and walkability principles; description of urban, suburban, rural and regional infrastructure.

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: 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 632. 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 633. 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.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Summer.

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. Structural Design Theory. 3 Credit Hours.

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

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

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 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.

Environmental and Safety Systems. Topics include mechanical - HVAC and conveyors; plumbing - fixtures and pipes; electrical - equipment and wiring design; safety systems - fire safety and emergency and signal systems.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

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

Principles and applications of light and acoustics. Topics include natural and artificial light - planning for sunlight, problems and solutions for interior and exterior illumination; sound - properties, problems and solutions in new and existing spaces electrical equipment and wiring design.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

ARC 665. 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 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 I. 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 prehistory to the end of the sixteenth century.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

ARC 668. History of Architecture II. 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 of the sixteenth century through to the present.

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.

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, German, 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 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. Housing and the Contemporary City. 3 Credit Hours.

Housing is a relatively new field and discipline, born of the complex interplay of urban development, building traditions, architectural innovation and basic human needs. The role of housing in building the city, and the role of the city in determining the shape and content of housing, will be the point of departure for this survey and seminar. The student is expected to gain an understanding of how building typology, history, urban traditions, site design, the functional issues of lifestyle and culture affect the critical issue of housing design. Simultaneously, an awareness of the role of housing design in the creation and articulation of urban space will be studied.

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. 1-6 Credit Hours.

The course addresses the issues of design as research and pre-design. Students will develop research, write a thesis statement, select a site, prepare a site documentation and site analysis, and develop an architectural program for the thesis project, select pertinent case studies and diagram them. This work will be collected and presented as both a presentation and in book form. In addition, the course prepares students for an independent design project through thoughtful development of a thesis question, site and program. The preparation of the thesis question will require the development of basic research strategies and methods, and understanding of how to find and evaluate sources, the analysis and synthesis of information, the development of a research plan and a design method, and the written and oral presentation of these skills to an outside audience.

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.