ARCHITECTURE (ARC)

ARC 500 Selected Topics (1-6 Credits)
Architecture
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

ARC 505 Thesis Preparation (3 Credits)
Architecture
Research, development and preliminary design studies for architectural design thesis project, ARC 508.
Prereq: ARC 311 and ARC 409 with minimum grade C

ARC 508 Architectural Design IX-Thesis (6 Credits)
Architecture
Undergraduate thesis. Semester-long, advanced project produced by the student and advised by the faculty.
Prereq: ARC 505 with minimum grade of C

ARC 511 Advanced Structural Resolution (3 Credits)
Architecture
Structural analyses to compare and contrast design solutions for a given project. Presents appropriate techniques, regulatory codes and software to facilitate such analyses and subsequent design decisions.
Prereq: ARC 311 or ARC 612

ARC 531 Icon & Image: A History of Architectural Representation (3 Credits)
Architecture
History of the practice and theory of architectural representation, from the origins to the nineteenth century.
Prereq: ARC 134 or CAS 134 or ARC 639

ARC 534 Introduction to History of Buddhist Architecture (3 Credits)
Architecture
History of Buddhist architecture from early reliquaries and monastic halls to contemporary mega-structures and theme parks.
Prereq: ARC 133 or ARC 134 or ARC 631 or ARC 639
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Civic and Global Responsibility (https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/)

ARC 552 Politics of Public Space (3 Credits)
Architecture
Issues surrounding public space, politics, and power relations as they impact our public realms, through investigations of critical and political theorists, geographers, architects and artists.
Prereq: ARC 208
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Civic and Global Responsibility (https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/); Ethics and Integrity (https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/)

ARC 555 Introduction to Building Information Modeling (3 Credits)
Architecture
Introduction to uses of Building Information Modeling in architecture through a series of case studies or drawing and analysis of building components in real time demonstrations. ARC 555 cannot be taken for credit after successful completion of ARC 558.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Communication Skills (https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/); Information Literacy and Technological Agility (https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/)

ARC 558 Advanced Building Information Modeling and 3D Design (3 Credits)
Architecture
Advanced Building Information Modeling as it pertains to architecture with a focus on project workflow and professional practices for building design and construction.
Prereq: ARC 555 or CEE 520
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Information Literacy and Technological Agility (https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/)

ARC 561 Survey of British Architecture (3 Credits)
Architecture
Through a series of visits to sites and buildings across England, students are introduced to the principal architects, stylistic movements and other trends in contemporary and historical architecture in England. Offered in London only
Coreq: ARC 407 or 408 or 608 or 609
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

ARC 563 Introduction to Computer Applications in Architecture (2-3 Credits)
Architecture
Overview of the computer and its applications to architecture. Direct involvement with the computer to resolve problems in structures, design, environmental systems, specifications, cost estimation, etc. Additional work required of graduate students.

ARC 566 Introduction to Preservation (3 Credits)
Architecture
Cross-listed with HOA 577
Problems and methods in implementing continued use for quality segments of the humanly built environment.
Prereq: ARC 134 or CAS 134
Shared Competencies: Civic and Global Responsibility (https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/); Information Literacy and Technological Agility (https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/)

ARC 568 Real Estate Design and Development (3 Credits)
Architecture
Analysis of the mechanisms through which real estate is developed, the interaction of public agencies, developers, and designers in initiation, financing, and design. Development fundamentals, evaluating economic feasibility, structuring developments, negotiating and present proposals.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Communication Skills (https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/); Scientific Inquiry and Research Skills (https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/)

ARC 569 Postcolonial Spaces (3 Credits)
Architecture
Exploration of the history of postcolonial architecture and the urban built environment. Additional work required of graduate students.
University Requirement Course: IDEA Requirement Eligible
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

ARC 571 Survey of Italian Architecture (3 Credits)
Architecture
Field trips: On-site observation and study of significant buildings and spaces. May apply toward professional elective component of degree program. Offered in Italy.
Coreq: ARC 407 or 408 or 608 or 609
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Civic and Global Responsibility (https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/)

ARC 572 Advanced Computer Applications to Architecture (2-3 Credits)
Architecture
Individual and/or group efforts at investigating and developing new computer programming requirements for architectural applications.

ARC 575 Urban Housing - Building, Block, Street (3 Credits)
Architecture
Focus on housing as an integral part of urban structure, both formal and sociopolitical. Relationships of residential unit to building, block, and city, as they represent the individual and community, are examined.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Civic and Global Responsibility (https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/)

ARC 576 Theories & Analysis of Exurbia (3 Credits)
Architecture
Course studies history, evolution, and contemporary condition of exurban built environment in America.
Prereq: ARC 208
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Scientific Inquiry and Research Skills (https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/)

ARC 582 NYC Internship Experience (3 Credits)
Architecture
This professional elective course immerses students in NYC architecture culture and exposes them to a variety of forms of professional practice through first-hand experience in an office.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Communication Skills (https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/)

ARC 583 Building Practice (3 Credits)
Architecture
Researching and interacting with activists, architects, authors, curators, designers, educators, fabricators, and strategists to reveal diverse approaches to building a professional practice.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

ARC 584 Furniture Fabrications (3 Credits)
Architecture
This seminar examines relationships between form, material, and purpose in furniture design. Coursework includes design and fabrication work-or, design-through-fabrication work.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

ARC 585 Professional Practice (3 Credits)
Architecture
Legal and administrative aspects of architectural practice. The architect's role in society.
Prereq: ARC 322
Shared Competencies: Information Literacy and Technological Agility (https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/)

ARC 600 Selected Topics (1-6 Credits)
Architecture
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

ARC 604 Architectural Design I (6 Credits)
Architecture
Foundational design principles encompassing form, spatial composition, function, context, and construction; emphasizing tactile making, material assemblies, and experimentation.

ARC 605 Architectural Design II (6 Credits)
Architecture
Design in an urban context focusing on conceptual design development, hybrid program, site analysis, and introductory integration of tectonic and environmental systems; emphasizing digital tools and techniques.
Advisory recommendation Prereq: ARC 604

ARC 606 Architectural Design III (6 Credits)
Architecture
Development and synthesis of design in a mutifaceted environment; emphasizing contextual research and integration of ecological, economic, cultural, social, and political factors.
Advisory recommendation Prereq: ARC 605

ARC 607 Integrated Architectural Design (6 Credits)
Architecture
Integration of contemporary design technologies, structural systems, building materials and construction assemblies selection, envelope design and environmental control systems, accessibility and life-safety issues, and building performance.
Advisory recommendation Prereq: ARC 606

ARC 608 Special Topics in Architectural Design (6 Credits)
Architecture
Design studio in which students choose from a range of topics and critics.
Repeatable 2 times for 12 credits maximum

ARC 609 Architectural Design VI (6 Credits)
Architecture
Advanced studio. Choice of upper-level studio.
Advisory recommendation Prereq: ARC 608 with minimum grade of C

ARC 611 Structures I (3 Credits)
Architecture
Conceptual and technical introduction to structural systems in relation to architectural form, with lab component. Basic structural concepts and systems, material behavior and analysis of major structural forms.

ARC 612 Structural Systems Design II (3 Credits)
Architecture
Design of structures; choice of appropriate materials and system, design of structural components in concrete, timber and steel. Introduction to wind and earthquake loads, high rise, pre-stressed concrete, and indeterminate structures. Evaluation to include research project.

ARC 621 Building Systems Design I (3 Credits)
Architecture
Conceptual and technical introduction to the relationships between design and climate, material assemblies, structures, building envelope, and environmental systems.

ARC 622 Building Systems Design II (3 Credits)
Architecture
Introduction to mechanical building systems, strategies, and simulation techniques. Science of thermal and visual comfort in relation to environmental systems, building envelope assemblies, passive and active strategies, and human comfort.
Advisory recommendation Prereq: ARC 621

ARC 623 Advanced Building Systems (3 Credits)
Architecture
Double-numbered with ARC 423
Building systems with lab component. Conventional and emerging technologies in construction, building enclosures, mechanical systems, parametric design and simulation tools, and regulatory policy and sustainable standards in relation to integrated architectural design. Additional work for graduate students.
Advisory recommendation Prereq: ARC 612 and 622
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Information Literacy and Technological Agility (https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/); Scientific Inquiry and Research Skills (https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/)

ARC 631 Studies in Architectural Histories (3 Credits)
Architecture
Double-numbered with ARC 331
Themes, concepts, and problems in architectural history from Antiquity to 1500.

ARC 634 The Architecture of Revolutions (3 Credits)
Architecture
Cross-listed with HOA 654
Double-numbered with ARC 334, HOA 454
Survey of European architectural theory and practice from the seventeenth century to the nineteenth century. Discussion and analysis of major architects, buildings, and architectural treatises, principally from France, England, and Germany. Additional work required of graduate students.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

ARC 637 American Architecture, Settlement to 1860 (3 Credits)
Architecture
Double-numbered with ARC 337, HOA 374
American architectural history and theory from first settlements through federal and Georgian to various revival modes. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639

ARC 638 American Architecture, 1860 - World War I (3 Credits)
Architecture
Double-numbered with ARC 338, HOA 375
American architectural history and theory from the Civil War through various revival modes to development of new commercial and residential forms before World War II. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639

ARC 639 Architectural History Principles (3 Credits)
Architecture
Themes, concepts, and problems in architectural history from 1500 to the present.
Advisory recommendation Prereq: ARC 631

ARC 641 Architectural Theory (3 Credits)
Architecture
Introduction to the recent history of architectural theories and contemporary approaches to theoretical speculation.

ARC 642 Architectural Theory and Design Research (3 Credits)
Architecture
Project-based, focused application of architectural theories to design research.
Advisory recommendation Prereq: ARC 641

ARC 650 Architectural Research (1-5 Credits)
Architecture
Selected approaches to architectural research.
Repeatable 5 times for 5 credits maximum

ARC 651 Language and Discourse in Architecture (3 Credits)
Architecture

ARC 670 Experience Credit (1-3 Credits)
Architecture
Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing.
Repeatable

ARC 681 Media I (3 Credits)
Architecture
Introduction to the use and implications of analogue and digital media. Students will learn fundamental skills and develop innovative applications for diverse drawing techniques and other media.

ARC 682 Media II (3 Credits)
Architecture
Continued study of architectural media with emphasis on capacities and techniques of modeling, including advanced digital design and fabrication.
Advisory recommendation Prereq: ARC 681

ARC 690 Independent Study (1-6 Credits)
Architecture
In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.
Repeatable

ARC 698 Directed Research (6 Credits)
Architecture
Double-numbered with ARC 498
A degree-culminating research project led by faculty members in their areas of expertise. Content and format varies. Additional work required for graduate students.
Advisory recommendation Prereq: ARC 608

ARC 700 Selected Topics (1-6 Credits)
Architecture
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

ARC 707 Architectural Design (6-9 Credits)
Architecture
Design studio introducing students to the critical application of architectural research principles and methods as well as current and near-future concepts, trends, and standards for design to a complex brief within a program focus area.

ARC 708 Architectural Design (6-9 Credits)
Architecture
Capstone course applying discipline-specific modalities, architectural research methods, and design principles learned throughout the program to an independent design and research thesis through collaboration with program peers and faculty advisors.
Advisory recommendation Prereq: ARC 707

ARC 731 Early Modern Architecture (3 Credits)
Architecture
Double-numbered with ARC 431, HOA 479
Early modern architecture from the 1890s through the 1930s. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639

ARC 732 The City in Architectural History (3 Credits)
Architecture
Double-numbered with ARC 432, HOA 419
A single city throughout its history, or various cities at a particular time in history. Additional work required of graduate students. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639

ARC 734 London's Built Environment (3 Credits)
Architecture
Double-numbered with ARC 434
Presents a social and political history of the built environment in London, focusing on times of destruction and (re)construction. Additional work required of graduate students.
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/); Communication Skills (https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/)

ARC 735 Islamic Architecture (3 Credits)
Architecture
Double-numbered with ARC 435, HOA 389
Major building traditions of Islam in the Middle East, North Africa, Spain, Turkey, and India elucidated through in-depth examination of major works and principles of architectural, urban, and garden design. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639

ARC 736 Modern Architecture: The International Style to Present (3 Credits)
Architecture
Double-numbered with ARC 436, HOA 475
Architecture of the modern period since World War II. Major works and figures as framed by the larger architectural issues of the period. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639

ARC 737 French Architecture, Sixteenth and Seventeenth Centuries (3 Credits)
Architecture
Double-numbered with ARC 433, HOA 439
Architecture of the Renaissance transported from Italy to France and developed into a specifically French architecture. Outstanding achievements of more than local interest. Additional work required of graduate students.
Advisory recommendation Prereq: ARC 639
Shared Competencies: Critical and Creative Thinking (https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/)

ARC 738 Introduction to the History of Chinese Architecture (3 Credits)
Architecture
Double-numbered with ARC 438
This lecture course traces the development of Chinese architecture from Neolithic societies at Bànp¿ to the "urban villages" and megacities of the present. Additional work required for Graduate students.
Advisory recommendation Prereq: ARC 631 and ARC 639

ARC 770 Architectural Research (3 Credits)
Architecture
Seminar introducing architectural research methods and the application of contemporary design research tools and techniques as a step toward developing an independent thesis.
Repeatable 2 times for 6 credits maximum

ARC 790 Independent Study (1-6 Credits)
Architecture
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.
Repeatable

ARC 900 Selected Topics (1-6 Credits)
Architecture
Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.
Repeatable

ARC 990 Independent Study (1-3 Credits)
Architecture
Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.
Repeatable

ARC 998 Design VII-Thesis (1-9 Credits)
Architecture
A major, semester-long, final project produced by the student and advised by the faculty.
Repeatable 2 times for 9 credits maximum
Advisory recommendation Prereq: ARC 607