Architectural Studies (ARCHST)

ARCHST 1005: Topics in Architectural Studies - Humanities
Organized study of selected topics in architectural studies. Particular topic and earnable credit may vary by semester. May be repeated for credit up to 6 credit hours.

Credit Hour: 1-99
Prerequisites: instructor's consent

ARCHST 1100: Visual Design
Design study as an introduction to basic design and visual composition with application to creating two- and three-dimensional abstract and /or functional design work. Studio exercises expressed through drawings and abstract models, using various media.

Credit Hours: 3

ARCHST 1200: Architectural Drafting and Working Drawings
Beginning drafting including equipment and materials; lettering; floor plans, sections, elevations; orthographic and axonometric drawings; working drawings; and details.

Credit Hours: 3

ARCHST 1600: Fundamentals of Environmental Design
Survey of the architectural environment emphasizing design fundamentals such as use, aesthetics, stability of structures and human relationships with places and time.

Credit Hours: 3
Prerequisites: ENGLSH 1000

ARCHST 1600W: Fundamentals of Environmental Design - Writing Intensive
Survey of the architectural environment emphasizing design fundamentals such as use, aesthetics, stability of structures and human relationships with places and time.

Credit Hours: 3
Prerequisites: ENGLSH 1000

ARCHST 2005: Topics in Architectural Studies - Humanities
Organized study of selected topics in architectural studies. Particular topic and earnable credit may very by semester. May be repeated for credit up to 6 credit hours.

Credit Hour: 1-99
Prerequisites: instructor's consent

ARCHST 2085: Problems in Architectural Studies
Supervised independent work.

Credit Hours: 3
Prerequisites: instructor's consent

ARCHST 2100: Understanding Architecture and the American City
Multifaceted introduction to the architectural and social roots of urban form in the U. S.: historic precedents from around the world; growth, decline and revival of cities; rise of suburbia; tradition and transformation in campus communities; continuing housing challenges; sustainable design and the future of urbanism. Explores a diverse range of opportunities to improve communities available to professionals and general public.

Credit Hours: 3

ARCHST 2210: Understanding Visualization for Animated Films
Provides a critical overview of design and visualization techniques in animated film-making. Emphasizes the role of the built environment and spatial design features.

Credit Hours: 3

ARCHST 2220: Introduction to CAD
Introduction to computer-aided drafting and design with AutoCad software. Emphasis will be placed on development of skills and problem solving related to the professions of environmental and interior design.

Credit Hours: 3
Recommended: ARCHST 1200

ARCHST 2230: Design Communication I
A course introducing techniques and conventions of digitally-mediated graphic communication as aids in the design process.

Credit Hours: 3
Prerequisites: ARCHST 2220

ARCHST 2310: Building Systems
Integrated building systems: structure, construction, technology, comfort; including voice-data communication, safety, floor, wall, ceiling, mechanical, electrical, and plumbing systems; and project estimating.

Credit Hours: 3

ARCHST 2315: Introduction to Building Systems Laboratory
Building system renovations, materials, processes, finishes, and applications testing: furniture design, fabrication, finishing, lighting, concrete and masonry, wood and steel light framing construction, and mock-up fabrication and testing. All equipment training and safety is covered in this introductory course.

Credit Hour: 1

ARCHST 2316: Advanced Building Systems Lab
Advanced exposure to building system renovations, materials, processes, finishes, and applications testing: furniture design, fabrication, finishing, lighting, concrete and masonry, wood and steel light framing construction, and mock-up fabrication and testing. Graded on A-F basis only.

Credit Hours: 2
Prerequisites: ARCHST 2315

ARCHST 2323: Sustainable Building Design Fundamentals
Environmental concerns addressed by green building design practices for consumers and owners of homes and businesses. Overview of how green buildings improve prospects for ecology, economy, social equity, and human health. Hands-on lab experiments reference national performance standards for decision making in sustainable building projects. Emphasis on energy and water use, sustainable sites, environmentally friendly building products, indoor air quality, and design for sustainable behaviors. Graded on A-F basis only.

Credit Hours: 3

ARCHST 2620: People, Places and Design
Understanding human behavior and interaction with environments; the influence of architectural design on built places. Practical application for design.

Credit Hours: 3

ARCHST 2811: Studio I
Application of basic design and composition to built form. Studio exercises in two and three dimensions using various media relating to usable spaces. Formation of design concept, development of form and space, and application in built environment. Graded on A-F basis only.

Credit Hours: 4
Prerequisites: ARCHST 1200
Corequisites: ARCHST 2220

ARCHST 3100: Color and Light
The theory, application, and specification of color and light for interior and architectural design. Includes assigned lab exercises for color and light portfolio.

Credit Hours: 3

ARCHST 3182: Studio II
Application of basic design principles to built forms and functional spaces. Identification and manipulation of elements of design, understanding spatial relationships between human body and spatial enclosures related to built forms. Spatial organization and familiarity with role of immediate context. Graded on A-F basis only.

Credit Hours: 4
Prerequisites: ARCHST 2310 and ARCHST 2811
Corequisites: ARCHST 2230

ARCHST 3230: Advanced Design Communication Using BIM
Advanced course in techniques and conventions of computer aided design (CAD) and Building Information Modeling (BIM) for contemporary design process.

Credit Hours: 3
Prerequisites: ARCHST 2230

ARCHST 3600: Environmental Analysis
Discover through analytical methods of primary organizational factors which operate in a building and reveal the preoccupations of designer. Analytical approach investigates design principles by means of dissection.

Credit Hours: 3
Prerequisites: ARCHST 2811

ARCHST 3600W: Environmental Analysis - Writing Intensive
Discover through analytical methods of primary organizational factors which operate in a building and reveal the preoccupations of designer. Analytical approach investigates design principles by means of dissection.

Credit Hours: 3
Prerequisites: ENGLSH 1000 and ARCHST 2811

ARCHST 3860: Human Factors Programming
Design Programming for Human Factors using a Case Study.

Credit Hours: 3
Recommended: ARCHST 1600

ARCHST 3860W: Human Factors Programming - Writing Intensive
Design Programming for Human Factors using a Case Study.

Credit Hours: 3
Recommended: ARCHST 1600

ARCHST 4001: Topics in Architectural Studies
Selected current topics in field of interest.

Credit Hour: 1-99

ARCHST 4085: Problems in Architectural Studies
Supervised independent work.

Credit Hour: 1-99
Prerequisites: instructor's consent

ARCHST 4085W: Problems in Architectural Studies - Writing Intensive
Supervised independent work.

Credit Hour: 1-12
Prerequisites: instructor's consent

ARCHST 4320: Materials, Methods and Products
(cross-leveled with ARCHST 7320). Inherent qualities of materials used in the design of interior environments. Manufacturing, application, and installation methods. Focus on environmentally sensitive materials.

Credit Hours: 3
Recommended: ARCHST 2310

ARCHST 4323: Sustainable Technologies and Systems
An in-depth study of ecologically-sensitive and energy-efficient strategies used in building and interiors. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: MATH 1050 or higher level of math

ARCHST 4325: Energy-Efficient Building Design
Broad study of energy use and energy-efficient strategies for buildings. Course will cover the fundamentals of climate-based design, energy-efficient heating/cooling/daylighting strategies, alternative energy systems applicable to buildings, energy auditing/modeling/verification, applicable building energy codes, and high performance building technologies.

Credit Hours: 3

Prerequisites: MATH 1100

ARCHST 4333: Compliance and Specifications
Application of laws, codes, regulations, standards in specifying for life safety, barrier-free and universal design, lighting, human factors, and contract documents. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ARCHST 4813 or ARCHST 4823

ARCHST 4355: Recent Trends in Digital Media I
Recent Trends in Digital Media I

Credit Hour: 1-99

ARCHST 4411: Study Abroad in Architectural History
Discovery of historic architecture through on-site tour of timeless cities and places. May be repeated for credit.

Credit Hour: 1-3
Prerequisites: instructor's consent

ARCHST 4430: Guiding Design with Historic Preservation
(cross-leveled with ARCHST 7430). Approaches to historic preservation; historic roots of architecture and interiors; regulations and design guidelines governing intervention; assessing significance of historic properties.

Credit Hours: 3
Recommended: American History or Government, or Art History

ARCHST 4435: History of the Designed Environment to 1750
An in-depth study of the designed environment including interiors, architecture, art, and the decorative arts within the major historical periods and cultural context from prehistory to the Industrial Revolution.

Credit Hours: 3

ARCHST 4440: Design Precedents: Architecture, Interiors and Furniture since the Industrial Revolution
(cross-leveled with ARCHST 7440). Analysis of historical exemplars of architecture, interiors and furniture design offering strategies for approaching contemporary design problems. Covers design precedents from industrial revolution to contemporary design.

Credit Hours: 3

ARCHST 4555: Recent Trends
(cross-leveled with ARCHST 7555). Upper-division students seeking additional knowledge in specific subject matter areas including digital media software.

Credit Hour: 1-99

ARCHST 4630: Shaping Human Settlements
(cross-leveled with ARCHST 7630). Review classic designs and designers, key concepts and enduring issues of community design within the overall framework of environmental design.

Credit Hours: 3

ARCHST 4700: Place-Making in Community Design
(cross-leveled with ARCHST 7700). Ideologies, case studies and participatory methods on place-making in community design. Use processes to design a place-making scheme in actual community project.

Credit Hours: 3

ARCHST 4710: Design Business Practices
Analysis of basic professional, human, and business skills necessary for the successful design practice. Studio work in development of portfolio and self-marketing materials with refinement through critiques. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ARCHST 4814 or ARCHST 4824

ARCHST 4760: Healthcare Facilities Design
(cross-leveled with ARCHST 7760). Health care facilities design and planning course provides an in-depth investigation of best practice examples. Design and research methods include evidence-based design, simulation, and space syntax analysis leading to high-performance healthcare design. Graded on A-F basis only.

Credit Hours: 3
Recommended: senior standing

ARCHST 4813: Interiors Studio III
Spatial morphology, organization pattern, construction methods, materials, systems, and processes and integration with total design processes. Space planning and spatial manipulation in response to social, environmental, functional, and aesthetics specific to interiors.

Credit Hours: 4
Prerequisites: ARCHST 3182

ARCHST 4814: Interiors Studio IV
Continuation of ARCHST 4813. Manipulation of form and space responding to programmatic functions and activities, and constraints imposed by structure, building materials, spatial enclosure, and related factors. Projects may involve designing single-function space to multiple-function layered spaces--both vertically and horizontally.

Credit Hours: 4
Prerequisites: ARCHST 4813

ARCHST 4815: Construction Documents and Building Information Modeling Studio
Studio of how materials, systems, and assemblies reinforce and extend intentions of designers. Course teaches strategies and techniques for integration and coordination of the building components and details in construction documents and building information modeling. Graded on A-F basis only.

Credit Hours: 4
Prerequisites: ARCHST 4333

ARCHST 4815H: Construction Documents and Building Information Modeling Studio - Honors
Studio of how materials, systems, and assemblies reinforce and extend intentions of designers. Course teaches strategies and techniques for integration and coordination of the building components and details in construction documents and building information modeling. Graded on A-F basis only.

Credit Hours: 4
Prerequisites: ARCHST 4333; Honors eligibility required

ARCHST 4823: Architectural Studio III
Continuation of ARCHST 3182. Spatial morphology, organization pattern, construction methods, materials, systems, and processes and integration with total design process. Space planning and spatial manipulation in response to social, environmental, functional, and aesthetics specifics to architecture.

Credit Hours: 4
Prerequisites: ARCHST 3182

ARCHST 4824: Architectural Studio IV
Continuation of ARCHST 4823. Manipulation of form and space responding to programmatic functions and activities, and constraints imposed by structure, building materials, spatial enclosure, and related factors. Projects may involve designing single-function space to multiple-function layered spaces - both vertically and horizontally.

Credit Hours: 4
Prerequisites: ARCHST 4823

ARCHST 4860: Programming for Thesis Design Studio
Develop written comprehensive program for thesis design studio project.

Credit Hour: 1
Prerequisites or Corequisites: ARCHST 4814 or ARCHST 4824
Prerequisites: ARCHST 2620

ARCHST 4940: Internship in Environmental Design
Field experience in design under professional and educational supervision. Graded on S/U basis only.

Credit Hour: 1-4
Prerequisites: instructor's consent

ARCHST 4960: Readings in Architectural Studio
Readings in recent research materials.

Credit Hour: 1-99

ARCHST 4961: Design Research and Service Design
(cross-leveled with ARCHST 7961). Provides an overview of applied research methods for design and development of products, services and environments. Introduces human-centered approach to design research and Communication of research findings to informed design concepts.

Credit Hours: 3
Recommended: senior standing

ARCHST 4962: Information Visualization and Visual Analytics
(cross-leveled with ARCHST 7962). Foundation for information visualization and deals with external representation and interactive manipulation of information, data or artifacts using digital tools to enhance communication, analytical reasoning and decision-making.

Credit Hours: 3
Recommended: senior standing

ARCHST 4963: Human Factors Research for Design
(cross-leveled with ARCHST 7963). Investigate effect of people's physical psychological, social functions in environments of differing scales. Use research techniques of photo-interviewers, mapping, and user analysis to develop an appropriate program for redesign.

Credit Hours: 3
Recommended: ARCHST 3860

ARCHST 4964: Design Thinking and Creative Process
(cross-leveled with ARCHST 7964). Analysis of how designers think, solve design problems, and engage in the creative process. Includes design methods, design cognition computations, and design protocol studies.

Credit Hours: 3
Recommended: ARCHST 4813 or ARCHST 4823

ARCHST 4990: Thesis Design Studio
Comprehensive studio project as a synthesis of previous work in addressing a design problem defined in ARCHST 3860W. Graded on A-F basis only.

Credit Hours: 4
Prerequisites: ARCHST 3860W, ARCHST 4814 or ARCHST 4824

ARCHST 7001: Topics in Environmental Design
Selected current topics in field of interest.

Credit Hour: 1-99

ARCHST 7085: Problems in Environmental Design
Supervised independent work.

Credit Hour: 1-99
Prerequisites: 3000-level course in field of problem and instructor's consent

ARCHST 7230: Computer Graphic Application for Design I
(cross-leveled with ARCHST 4230). Applications of computer graphics for design and art; includes visualization, animation and creative development. May repeat up to 12 credit hours maximum.

Credit Hours: 3

ARCHST 7232: Graduate Design Communication I
Studio course in techniques and conventions of graphic communication as an aid in the design process of built forms.

Credit Hours: 3

ARCHST 7310: Graduate Building Systems
Integrated building systems; structure construction, technology, comfort; including voice-communications, safety, floor, wall, ceiling, mechanical, electrical, and plumbing systems, project estimating and management.

Credit Hours: 3
Prerequisites: MATH 1100

ARCHST 7315: Graduate Systems Laboratory
Experimental learning setting involving building construction systems, renovation, materials and finishes testing and experimentation. Focus on hands-on opportunities investigating building technology properties in detail. Laboratory 3 hrs/week.

Credit Hour: 1-9

ARCHST 7320: Materials, Methods and Products
(cross-leveled with ARCHST 4320). Inherent qualities of materials used in the design of interior environments. Manufacturing, application, and installation methods. Focus on environmentally sensitive materials.

Credit Hours: 3
Prerequisites: MATH 1100

ARCHST 7323: Sustainable Technologies and Systems
(cross-leveled with ARCHST 4323). An in-depth study of ecologically-sensitive and energy-efficient strategies used in buildings and interiors.

Credit Hours: 3

ARCHST 7325: Energy-Efficient Building Design
(cross-leveled with ARCHST 4325). This course is a broad study of energy use and energy-efficient strategies for buildings. The course will cover the fundamentals of climate-based design, energy-efficient heating/cooling/daylighting strategies, alternative energy systems applicable to buildings, energy auditing/modeling/verification, applicable building energy codes, and high performance building technologies. Recommended for graduate students with undergraduate degrees and experience in engineering, architecture, and/or building science.

Credit Hours: 3

ARCHST 7333: Compliance and Specifications
(cross-leveled with ARCHST 4333). Application of laws, codes, regulations, standards in specifying for life safety, barrier-free and universal design, lighting, human factors, and contract documents. Graded on A-F basis only.

Credit Hours: 3
Prerequisites: ARCHST 4813 or ARCHST 4823

ARCHST 7355: Recent Trends in Digital Media I
Recent Trends in Digital Media I

Credit Hour: 2-4

ARCHST 7430: Guiding Design with Historic Preservation
(cross-leveled with ARCHST 4430). Approaches to historic preservation; historic roots of architecture and interiors; regulations and design guidelines governing intervention; assessing significance of historic properties.

Credit Hours: 3
Prerequisites: American History or Government or Art History or instructor's consent

ARCHST 7440: Design Precedents: Architecture, Interiors and Furniture since the Industrial Revolution
(cross-leveled with ARCHST 4440). Analysis of historical exemplars of architecture, interiors and furniture design offering strategies for approaching contemporary design problems. Covers design precedents from industrial revolution to contemporary design.

Credit Hours: 3

ARCHST 7555: Recent Trends in Environmental Design
Upper-division students seeking additional knowledge in specific subject matter areas including digital media software.

Credit Hour: 1-99

ARCHST 7620: Environment and Behavior
Evaluate relationships between human behavior and environmental design. Survey of environment and behavior theoretical foundations examining how these concepts translate into a more responsive theory of design.

Credit Hours: 3

ARCHST 7630: Shaping Human Settlements
(cross-leveled with ARCHST 4630). Review classic designs and designers, key concepts and enduring issues of community design within the overall framework of environmental design.

Credit Hours: 3

ARCHST 7650: Psychosocial Function and Older Adults
(same as F_C_MD 7751, BBME 7751, H_D_FS 7751, NURSE 7751, P_HLTH 7751, SOC_WK 7751). This course takes an Interdisciplinary approach to understanding the psychosocial function of older adults and explores approaches to alleviate disabling conditions that interfere with psychosocial function and quality of life in old age. Graded on A-F basis only.

Credit Hours: 3

ARCHST 7700: Place-Making in Community Design
(cross-leveled with ARCHST 4700). Ideologies, case studies and participatory methods on place-making in community design. Use processes to design a place-making scheme in actual community project.

Credit Hours: 3

ARCHST 7840: Graduate Design Studio
Advanced graduate level design experience emphasizing project complexity, design skill refinement, and optional development of thesis project strategies.

Credit Hours: 3
Prerequisites: instructor's consent

ARCHST 7940: Internship in Environmental Design
Field experience in design under professional and educational supervision. Graded on S/U basis only.

Credit Hour: 1-99
Prerequisites: instructor's consent

ARCHST 7960: Readings in Environmental Design
Readings in recent research materials.

Credit Hour: 1-99

ARCHST 7961: Design Research and Service Design
(cross-leveled with ARCHST 4961). Provides an overview of applied research methods for design and development of products, services and environments. Introduces human-centered approach to design research and communication of research findings to inform design concepts.

Credit Hours: 3

ARCHST 7962: Information Visualization and Visual Analytics
(cross-leveled with ARCHST 4962). Foundation for information visualization and deals with external representation and interactive manipulation of information, data or artifacts using digital tools to enhance communication, analytical reasoning and decision-making.

Credit Hours: 3

ARCHST 7963: Human Factors Research for Design
(cross-leveled with ARCHST 4963). Investigate effect of people's physical psychological, social functions in environments of differing scales. Use

research techniques of photo-interviewers, mapping, and user analysis to develop an appropriate program for redesign.

Credit Hours: 3

ARCHST 7964: Design Thinking and Creative Process
(cross-leveled with ARCHST 4964). Analysis of how designers think, solve design problems, and engage in the creative process. Includes design methods, design cognition and computations, and design protocol studies.

Credit Hours: 3

ARCHST 8001: Topics in Environmental Design
Selected current topics in field of interest.

Credit Hour: 1-99

ARCHST 8050: Research Methods in Environmental Design
A comparative study of quantitative and qualitative methods in environmental design with emphasis on research results and analyses. Lectures and seminar discussions.

Credit Hours: 3

ARCHST 8085: Problems in Environmental Design

Credit Hour: 1-99
Prerequisites: 4000-level course in field of problem and instructor's consent

ARCHST 8090: Master's Research in Environmental Design
Independent research leading to a creative project. Graded on S/U basis only.

Credit Hour: 1-99

ARCHST 8230: Computer Graphic Application for Design II
Creative computer graphic modeling, rendering and animation projects related to the academic background and interests of individual students. May be repeated to 6 hours maximum.

Credit Hours: 3

ARCHST 8600: Graduate Environmental Analysis
Analysis of design principles and organizational factors operating in a building by means of dissection. Volumetric disposition, circulation pattern, axes, structural system, materials, purpose, and symbolism.

Credit Hours: 3

ARCHST 8630: Philosophy of Environmental Design Research
Formal environmental design theory concerning historical precedents, current aesthetic trends, and design processes. Assignments investigate philosophical influences, architectonic vocabularies, and communication of idea and artifact. May be repeated up to 12 credit hours.

Credit Hours: 3

ARCHST 8633: Theoretical Perspectives of Design Computing
Key theoretical ideas underlying the relationship between design and computing. Main research topics relevant to current discourse in design computing.

Credit Hours: 3

ARCHST 8820: Graduate Digital Design Studio
Graduate level design experience emphasizing project complexity, design skill refinement, and use of digital media for design representation.

Credit Hour: 1-99

ARCHST 8830: Digital Design Studio II
Advanced graduate level design experience emphasizing design, documentation, and representation using digital media. Optional development of graduate thesis project may be scheduled in this studio.

Credit Hours: 4

ARCHST 8840: Graduate Design Studio
Advanced graduate level design experience emphasizing project complexity, design skill refinement, and optional development of thesis project strategies.

Credit Hour: 1-99
Prerequisites: instructor's consent

ARCHST 8850: Seminar in Environmental Design
Reports, discussion of recent work in area of concentration.

Credit Hour: 1-4

ARCHST 8887: Environment and Behavior II
Synthesis of environment and behavior themes in design research and application to professional practice. Research on socio-behavioral phenomena, user groups, places. Emphasis on integrated interactive character of elements.

Credit Hours: 3

ARCHST 8950: Qualitative Research Methods
Explores qualitative research methods as foundation for subsequent study. Focuses on qualitative research of the built environment. Course may be repeated for credit.

Credit Hours: 3

ARCHST 8960: Readings in Environmental Design
Readings in recent research materials.

Credit Hour: 1-99
Prerequisites: ARCHST 4960 or ARCHST 7960

ARCHST 8990: Thesis Project Proposal
The formal opportunity to express the intent and scope of the thesis project.

Credit Hour: 1
Prerequisites: instructor's consent

ARCHST 9085: Problems in Environmental Design

Credit Hour: 1-99
Prerequisites: 4000-level course in field of problem and instructor's consent

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ARCHST 9090: Doctoral Research in Environmental Design
Independent research leading to thesis or dissertation. Graded on a S/U basis only.

Credit Hour: 1-99

ARCHST 9555: Recent Trends in Environmental Design
For students seeking additional knowledge and understanding in specific subject matter areas.

Credit Hour: 1-99

ARCHST 9990: Dissertation Proposal
A formal dissertation proposal is written and presented to the dissertation committee for approval.

Credit Hour: 1-9
Prerequisites: instructor's consent

ARCHST 9995: Pilot Project for Dissertation
Working with advisor, student proposes, conducts, and reports the findings from a pilot study germane to the dissertation topic in preparation for the dissertation research.

Credit Hour: 1-99
Prerequisites: instructor's consent