ARCH 100 Introduction to the Built Environment (3) Exploration of human responses to place, climate, culture, communication, technology, and time, with emphasis on the impact of scientific knowledge and architectural design theory on history, culture, sociology, technology and built form. Open to nonmajors. DS

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

ARCH 101 Basic Architecture Studio (4) Hands-on exploration of materials and construction techniques and introduction to architectural design processes. Investigation of architecture as creation of space generated by human needs and aspirations including analysis of exemplary precedents. A-F only. DA

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 8. Ordering Systems Skills: Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

ARCH 132 Design Communication (4) Exploration of critical judgment and means to conceptualize, develop, represent, and communicate architectonic form and space, including fundamentals of freehand drawing, mechanical drawing, physical model making, diagramming, and graphic techniques. A-F only. Pre: 101 or departmental approval. DA

A. 3. Visual Communication Skills: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

ARCH 200 Professional Practice of Architecture (3) Investigation of disciplines that address contemporary transformative issues. Emphasis on the role of architecture and the use of multi-disciplinary and collaborative methods to address critical issues. Open to non-majors. A-F only. Pre: 100. NI

C. 3 Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

ARCH 201 Architecture Studio (4) Development of designs and processes to explore solutions responding to human needs in the built and natural environment with emphasis on analysis and representation architectonic space and form using hand and computer techniques. A-F only. Pre: 132. NI DA
A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design.

ARCH 235 Computer Applications in Architecture (4) Exploration of digital design fundamentals and their application to architectural analysis, conceptualization, design process, and communication of design intent. Pre: MATH 140. NI

A. 3. Visual Communication Skills: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

ARCH 271 World Architecture and Urbanism A (3) The significance of architecture in recording the development and aspirations of societies in the world’s major cultural regions, from early agricultural settlements to 1500 C.E. Prerequisite for advanced courses in architectural history and theory. Open to non-majors. Pre: HIST 151. NI DH

A. 9. Historical Traditions and Global Culture: Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

A.10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

ARCH 272 World Architecture and Urbanism B (3) The significance of architecture in recording the development and aspirations of societies in the world’s major cultural regions, from the 15th century C.E. until the contemporary period. Prerequisite for advanced courses in architectural history and theory. Open to non-majors. Pre: HIST 152. NI DH

A. 9. Historical Traditions and Global Culture: Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings
from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

**A.10. Cultural Diversity:** Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

**C. 2. Human Behavior:** Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

ARCH 320 Introduction to Architectural Systems A (3) Introduction to building systems, including structural, environmental, life-safety, building envelope, building materials and building assemblies. Development of design skills with emphasis on elevating skills in assessing and selecting appropriate building systems. A-F only. Pre: MATH 140 and PHYS 151+L.

ARCH 321 Introduction to Architectural Systems B (3) Investigation of buildings as related to social and natural systems. Study of water, plumbing, energy generation, renewable energy, lighting, acoustics, vertical transportation, fire safety, and introduction to heating, ventilation, and air conditioning. ARCH majors only. A-F only. Pre: 320.

**B. 11. Building Service Systems:** Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.

ARCH 322 Sustainable Systems (3) Qualitative and quantitative investigation of HVAC systems and sustainable building design with emphasis on high-performance building design and operation, innovative mechanical and energy systems, integrated energy and resource conservation and renewable energy systems. ARCH majors only. A-F only. Pre: 321 or departmental approval.

**B. 8 Environmental Systems:** Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

**B. 12. Building Materials and Assemblies:** Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.
ARCH 341 Intermediate Architecture Studio A (4) Architectural design with emphasis on space planning, building materials, technology, climatic responses, and codes including complex functional requirements, multi-story design issues, vertical transportation, structure, and finishes. Production of complete schematic design documents. A-F only. Pre: 235 and 320.

**A.1. Communication Skills:** Ability to read, write, speak and listen effectively.

**A. 2. Design Thinking Skills:** Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

**A. 6. Fundamental Design Skills:** Ability to effectively use basic architectural and environmental principles in design.

ARCH 342 Intermediate Architecture Studio B (4) Building and site design with emphasis on site development, analysis, and climatic response. Introduction to sustainable design, land use ordinances, description and delineation of property and land features, and urban and community design. A-F only. Pre: 341.

**A.1. Communication Skills:** Ability to read, write, speak and listen effectively.

**A. 2. Design Thinking Skills:** Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

**A. 6. Fundamental Design Skills:** Ability to effectively use basic architectural and environmental principles in design.

ARCH 371 Design Theory (3) Examination of theories, movements, and periods in architectural history focusing on contemporary issues. Introduction to analytic techniques for achieving understanding of formal and spatial of architectural and site constructs. ARCH majors only. A-F only. Pre: 271 or 272 or departmental approval.

**A. 2. Design Thinking Skills:** Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

**A. 10. Cultural Diversity:** Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.
ARCH 415 Concentration Architecture Studio (6) Professional experience combined with scholarly and research activity occurring in an off-campus location with a focus on architectural concentration areas. ARCH majors only. A-F only. Pre: 342. DP

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design.

ARCH 433 Professional Practice Law and Ethics (3) Exploration of the practice of architecture including: professionalism; office organization and administration; public, client, consultant, and other contractor relations; project administration, procedure and compensation; construction law and contract administration. A-F only.

C. 6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

C. 7. Legal Responsibilities: Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

ARCH 511 Architecture History (3) Investigation of architectural history and theory in the world from antiquity to present. Examining social, political, technological, material, and environmental forces. ARCH majors only. A-F only. Pre: departmental approval.

A. 9. Historical Traditions and Global Culture: Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

A. 10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.
ARCH 515 Asia-Pacific Architectural History and Theory (3) Study of the history and theory of culture and the built environment with particular focus on the Asia-Pacific region. ARCH majors only. A-F only. Pre: 371.

A. 9. Historical Traditions and Global Culture: Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

A. 10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

ARCH 516 Architecture and Urban Design Theory (3) Detailed investigation of major theories in architecture and urban design and examination of their impact on contemporary architectural practice in varied geo-political contexts. Open to non-majors. A-F only. Pre: 575 or departmental approval.

A. 10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

C. 3 Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

C.9. Community and Social Responsibility: Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.
ARCH 522 Architecture Systems I: Introduction to Systems (3) Study of building materials, assemblies, and integrated design including structural, environmental, life-safety, and building envelope systems. Development of ability to design, analyze and assess appropriate systems. ARCH majors only. A-F only. Pre: departmental approval.

B. 8 Environmental Systems: Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

B. 11. Building Service Systems: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protectionsystems.

B. 12. Building Materials and Assemblies: Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

ARCH 523 Architecture Systems II: Wood and Steel (3) Properties, evolution, and range of wood and steel and their use in structural systems and the ability to assess, select design, and integrate structural systems into building design. ARCH majors only. A-F only. Pre: 322, MATH 140, and PHYS 151.

B. 9. Structural Systems: Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

ARCH 524 Architecture Systems III: Concrete and Masonry (3) Properties, evolution, and range of masonry, concrete and advanced composites and their use in structural systems and the ability to assess, select design, and integrate structural systems into building design. ARCH majors only. A-F only. Pre: 523 or departmental approval.

B. 9. Structural Systems: Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.
ARCH 525 Architecture Systems IV: Sustainability (3) Qualitative and quantitative investigation of sustainable building systems with emphasis on integrated high-performance building design and operation, innovative mechanical systems, resource conservation, and renewable energy systems. ARCH majors only. A-F only. Pre: 524 or departmental approval.

B. 8 Environmental Systems: Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

ARCH 526 Architecture Systems V: Integration (3) Properties, evolution, and range of building materials, assemblies, and systems and their applications in integrated high-performance building design with a focus on the role of detail and systems in the design process. ARCH majors only. A-F only. Pre: 524 or departmental approval.

B. 10. Building Envelope Systems: Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

B. 11. Building Service Systems: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.

B. 12. Building Materials and Assemblies: Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

ARCH 531 Advanced Design Communication I (3) Exploration of digital technologies, their relationship to design, and their application to architectural analysis, conceptualization, design processes, communication, representation, and construction. ARCH majors only. A-F only. Pre: departmental approval.

A. 3. Visual Communication Skills: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.
ARCH 533 Advanced Design Communication II (3) An interdisciplinary investigation of design theory as connected to digital technology and its applications to current developments in practice and research within architecture and design. ARCH majors only. A-F only. Pre: departmental approval.

A. 3. Visual Communication Skills: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

ARCH 539 Research Methods Seminar (3) Comprehensive assessment of objectives and function of research in architecture. Lecture, seminar, independent work with emphasis on doctorate project topic and proposal development. ARCH majors only. A-F only. Pre: 541.

A.1. Communication Skills: Ability to read, write, speak and listen effectively.

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.


ARCH 540 Architecture Studio I: Intro to Design (6) Design theories and systematic analytic and synthetic methodologies applied to creation of building and site spaces responsive to environmental and human needs. Several individual projects. ARCH majors only. A-F only. Pre: departmental approval.

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design.

A. 7. Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

A. 8. Ordering Systems Skills: Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.
ARCH 541 Architecture Studio II (6) Design of a medium complexity building and site engaging social, cultural, codes, building systems, and sustainable design. Production of program and schematic design documents. Individual projects. ARCH majors only. A-F only. Pre: 415.

A. 2. **Design Thinking Skills**: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 7. **Use of Precedents**: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

A. 8. **Ordering System Skills**: *Understanding* of the fundamentals of both natural and formal systems and the capacity of each to inform two- and three-dimensional design.

B. 2. **Accessibility**: Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

B. 3. **Sustainability**: Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

B. 5. **Life Safety**: Ability to apply the basic principles of life-safety systems with an emphasis on egress.

ARCH 542 Architecture Studio III (6) Design of complex, large scale building and site engaging social, cultural, code, sustainable systems, and acoustic issues. Production of schematic and design development documents. ARCH majors only. A-F only. Pre: 541 or departmental approval.

A. 2. **Design Thinking Skills**: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A. 7. **Use of Precedents**: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.
A.5. Investigative Skills: Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

A.8. Systems Skills: Understanding of the fundamentals of both natural and formal systems and the capacity of each to inform two- and three-dimensional design.

B.1. Pre-Design: Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

B.3. Sustainability: Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

B.7. Financial Considerations: Understanding of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

C.3. Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

ARCH 543 Architecture Studio IV: Urban Design (6) Urban design focused on Asian cities investigating social, cultural, political, and technological factors; study of historical precedents, building/block typology, circulation, infrastructure, and context response. ARCH majors only. A-F only. Pre: 542 or departmental approval.

A.5. Investigative Skills: Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

A.7. Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

B.2. Accessibility: Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.
B. 3. Sustainability: Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

B. 4. Site Design: Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

C. 1. Collaboration: Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

ARCH 544 Architecture Studio V: Comprehensive Design (6) Design and programming for a moderately complex building and site. Production of design development and partial construction documents describing sustainable building assemblies and construction cost. ARCH majors only. A-F only. Pre: 525 and 539 and 543, or departmental approval.

B. 6. Comprehensive Design: Ability to produce a comprehensive architectural project that demonstrates each student’s capacity to make design decisions across scales while integrating the following SPC:

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

A.4. Technical Documentation: Ability to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

A.5. Investigative Skills: Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

A. 8. Systems Skills: Understanding of the fundamentals of both natural and formal systems and the capacity of each to inform two- and three-dimensional design.

A. 9. Historical Traditions and Global Culture: Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous,
vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

**B. 2. Accessibility:** Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

**B. 3. Sustainability:** Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

**B. 4. Site Design:** Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

**B. 5. Life Safety:** Ability to apply the basic principles of life-safety systems with an emphasis on egress.

**B. 8 Environmental Systems:** Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

**B. 9. Structural Systems:** Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

**ARCH 545 Advanced Practice (3)** Comprehensive study of architectural practice investigating architect’s response to global forces, including entrepreneurial practice, office organization, project delivery, compensation, and construction law. ARCH majors only. A-F only. Pre: 433.

**C. 1. Collaboration:** Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

**C. 2. Human Behavior:** Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

**C. 3 Client Role in Architecture:** Understanding of the responsibility of the
architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

C. 4. Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.

C. 5. Practice Management: Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

C. 6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

C. 7. Legal Responsibilities: Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

C. 8. Ethics and Professional Judgment: Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

C. 9. Community and Social Responsibility: Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

ARCH 546 Doctorate Project I (3) Individual development of a doctorate project with an approved chair and doctorate project committee that advances architectural knowledge through analysis, research, scholarship, and design. ARCH majors only. A-F only. Pre: 525 and 539, or departmental approval.

A.1. Communication Skills: Ability to read, write, speak and listen effectively.

A.5. Investigative Skills: Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.


B. 1. Pre-Design: Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an
inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

ARCH 547 C  Professional Studio (12) Scholarly and research activity combined with professional experience occurring in an off-campus location. Community Design Studio. Studio based professional research and design on outreach community projects. ARCH majors only. A-F only. Pre: 535 and 544, or departmental approval. Fall only.

C. 1. Collaboration: Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

C. 3 Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

C. 4. Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.

C. 5. Practice Management: Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

C. 6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

C. 7. Legal Responsibilities: Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

C. 8. Ethics and Professional Judgment: Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

C. 9. Community and Social Responsibility: Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.
ARCH 547 P Professional Studio-Practicum (12) Scholarly and research activity integrated into a professional office environment. Repeatable three times. ARCH majors only. A-F only. Pre: 544, 545, and 546; or departmental approval.

C. 1. Collaboration: Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

C. 3 Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

C. 4. Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.

C. 5. Practice Management: Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

C. 6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

C. 7. Legal Responsibilities: Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

C. 8. Ethics and Professional Judgment: Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

C. 9. Community and Social Responsibility: Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.
C. 1. Collaboration: Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects.

C. 2. Human Behavior: Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

C. 3 Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

C. 4. Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.

C. 5. Practice Management: Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

C. 6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

C. 7. Legal Responsibilities: Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

C. 8. Ethics and Professional Judgment: Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

C. 9. Community and Social Responsibility: Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

ARCH 548 Doctorate Project II (6) Individual development of a doctorate project with an approved committee that advances architectural knowledge through research, scholarship, design, and engages theoretical and architectonic propositions. ARCH majors only. A-F only. Pre: 526 and 547, or departmental approval. Spring only.

A. 1. Communication Skills: Ability to read, write, speak and listen effectively.

A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use
abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

**A. 3. Visual Communication Skills:** Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

**A.5. Investigative Skills:** Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

**A.11. Applied Research:** Understanding the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.