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Course Descriptions ARCH

Course Categories

Course Category	Number of Courses	Total Credit Hours
General Education	7	19
General/Liberal Studies Elective (non-architecture courses)	5	15
Architecture Core Classes	28	110
Architecture Professional Electives	4	12
Open Electives (either architecture or non- architecture courses)	5	15
TOTAL	49	171

CORE COURSES

DESIGN STUDIOS

ARCH 160 Foundations in Design I (5 credits)

A studio course that introduces students to architectural representation. Orthographic projections, descriptive geometry, contours, paraline drawings, shade and shadows and model making are presented and applied.

PREREQUISITES: None

ARCH 161 Foundations in Design II (5 credits)

This course develops the techniques introduced in Foundations in Design I and introduces freehand/estimated perspective, presentation composition and basic rendering techniques. PREREQUISITES: ARCH 160.

ARCH 199 Design I (6 credits)

This first course of the eight-semester design sequence develops principles of architecture in a studio setting. Projects explore notions of space definition, landscape intensification and transformation, space organization and elementary construction technologies.

PREREQUISITES: ARCH 100; ARCH 150 or ARCH 160: ARCH 151 or ARCH 161.

ARCH 200 Design II (6 credits)

Continuation of Design I. The level of complexity of the projects is increased. Issues of intention and image are introduced. Natural, suburban and urban sites are used to broaden student awareness of the environment. Ordering principles are related to function and to site conditions.

PREREQUISITES: ARCH 199.

ARCH 201 Design III (6 credits)

Reinforces the concepts introduced in Design I and II and explores the impact of function, structure, construction, site conditions and climate on architectural form. PREREQUISITES: ARCH 200.

ARCH 202 Design IV (6 credits)

Continuation of Design III. Explores the impact of programming function, structure construction site conditions, and the environment on architectural form.

PREREQUISITES: ARCH 201.

ARCH 203 Design V (6 credits)

Reinforces work of earlier design studios and explores issues of more complex building types and urban design. PREREQUISITES: ARCH 202; ARCH 502; ARCH 522; ARCH 651.

ARCH 204 Design VI (6 credits)

Continuation of Design V. Exploration of issues of more complex building types, urban design, and building design comprehensive needs. PREREQUISITES: ARCH 203; ARCH 951.

ARCH 860 Thesis I (6 credits)

Builds on work of previous design studios and emphasized exploration and development of architectural expression through integration of various aspects of architectural design within cultural and site contexts. PREREQUISITES: ARCH 206; ARCH 701 or ARCH 570, ARCH 891.

ARCH 861 Thesis II (6 credits)

The final design studios with emphasis on exploration and development of architectural expression through integration of various aspects of architectural design within cultural and site contexts. PREREQUISITES: ARCH 860 or ARCH 207; ARCH 701 or ARCH 570.

LECTURE COURSES

ARCH 100 Architecture Freshman Seminar (1 credit)

A seminar course which introduces first year students to a range of areas of interest, expertise, and career paths within the architecture profession.

PREREQUISITES: None

ARCH 208 Design Thinking and Making (3 credits)

The course introduces students to the process of thoughtful design through investigation and making. The course is predicated on the concept that establishing a solid methodology on the practice of making and thinking in non-linear, abstract ways can facilitate the process of designing virtually anything. While every design challenge is unique, applying a deeper understanding of how to approach the question/s being asked is of paramount importance. This course focuses on how to approach an abstract idea and make it concrete by marrying the theories of conceptualization and investigation with the physical acts of making. The goal is to have students create a systematic methodology that can be applied to virtually all design challenges at every level of studio and beyond. The class will be comprised of lectures, readings, discussions and the application of ideas into physically made objects as well as training on special equipment, tools and software will form an integral part of the course.

PREREQUISITES: None.

ARCH 266 Architecture Pre-Design (3 credits)

Course focuses primarily on needs of students who are approaching design problems requiring a sequential structuring for analysis, synthesis and evaluation. The course covers micro to macroenvironmental programming and design procedures. Considerable emphasis on development and use of appropriate communication skills with case studies.

PREREQUISITES: ARCH 199; Second year standing.

ARCH 270 Digital Tools in Architecture I (3 credits)

Introduces architecture students to computer applications to architecture. Provides computer literacy for both business and graphic computer applications and systems management.

PREREQUISITES: None.

ARCH 301 Architectural History Survey I (3 credits)

Principles of architectural history, the why and how of the study of history is presented in the context of early civilizations and their architecture. The course covers the beginning of work of the Arab-world, antiquity, late antiquity and post. Late antiquity persuades of Africa, Europe, Central Asia, Asia and pre-Columbian America. PREREQUISITES: ARCH 100; ARCH 150 or ARCH 160; ARCH 151 or ARCH 161.

ARCH 302 Architecture History Survey II (3 credits)

This course provides clear definitions and limits of the elements of architecture as they relate to sociocultural systems conferring significance and noteworthiness to respective historical styles, from the postrenaissance period to the contemporary period. PREREQUISITES: ARCH 301.

ARCH 401 Materials and Methods (3 credits)

Introduces students to the technologies of light construction including wood framing, masonry, and concrete. Properties of these materials are analyzed and the problem associated with their assemblies are studied and graphically illustrated.

PREREQUISITES: ARCH 100; ARCH 150 or ARCH 160; ARCH 151 or ARCH 161.

ARCH 501 Structures I (Statics) (3 credits)

Study of force composition, effect, resolution, equilibrium and the strength, mechanical and elastic properties of materials. PREREQUISITES: MATH 007.

ARCH 502 Structures II (Strength) (3 credits)

Elementary analysis and design of structural framing members in wood, steel and concrete.

PREREQUISITES: ARCH 501.

ARCH 521 Introduction to Environmental Systems I (3 credits)

Exploration of energy issues and conservation, climate, and heat loss and gain as factors in environmental design. PREREQUISITES: MATH 007; PHYS 008; ARCH 200; ARCH 402.

ARCH 522 Introduction to Environmental Systems II (3 credits)

Examination of principles and technologies of life safety systems, vertical transportation systems, electrical supply and distribution systems, lighting, and acoustics and their integration with architectural design. PREREQUISITES: ARCH 201; ARCH 501; ARCH 521.

ARCH 530 Introduction to Sustainability (3 credits)

This introductory course will examine the meaning, history, sources, context and strategic approaches towards sustainability as viewed through a design lens. To approach an understanding of sustainable design, however, one must first explore what it means to be sustainable and why it is of primary importance in today's world, especially in architecture and design. This course will take a macro approach toward sustainability by casting a broad net on what the operating principles and strategies of sustainable design should espouse. This course is not intended to create a detailed analysis of specific projects or energy models for high performance buildings. It is meant to introduce students to a number of sustainable strategies and to inculcate the necessity for their inclusion in all design.

PREREQUISITES: None.

ARCH 570 Public Issues, Climate Change and Architecture (3 credits)

Introduces students to key issues and factors linking architects to the public through an examination of historical developments, public policy and contemporary development initiatives. An emphasis is placed on issues related to the proliferation of suburbia and the resurgence of urban centers in North America. Human settlements and buildings are shaped within processes and systems regulated by government. They are also a reflection of cultural and social values, channeled through the work of design and development professionals.

PREREQUISITES: ARCH 203.

ARCH 651 Principles of Urban Design (3 credits)

Exposes architecture students to the concepts, methodologies, techniques and attitudes of urban design to convey an understanding of urban design in the contexts of both the micro and macro scales of the built environment and to sensitize students to the place of architectural interventions in systems of urban design.

PREREQUISITES: ARCH 201; ARCH 302; ARCH 521.

ARCH 720 Advanced Architecture Theory (3 credits)

The course will examine how architectural theory has continued to expand at such a rate that it is impossible to address the entirety of the current discourse in one or even several courses. The objective here is to provide a grounding in the main streams of theoretical thinking, to acquaint the student with principal voices in architectural discourse and the defining differences in current thinking as well as provide a useful way of organizing the varying ideas in that discourse into some coherent and useful system of thought. PREREQUISITES: ARCH 205

ARCH 751 Professional Practice (3 credits)

Study of standard practices of the architectural profession, including ethics, contracts, performance criteria and fiscal management. PREREQUISITES: ARCH 202; ARCH 951.

ARCH 891 Thesis Preparation (3 credits)

Research methods, analysis, and program development for thesis project. PREREQUISITES: ARCH 204; and within 36 credits of completion of the curriculum.

ARCH 951 Construction Documents I (3 credits)

Involves the reparation of technical, professional and legal documentation for building projects. PREREQUISITES: ARCH 200; ARCH 202; ARCH 266, ARCH 401; ARCH 502; ARCH 522.

ARCHITECTURE PROFESSIONAL ELECTIVES

ARCH 219 Contemporary Issues in Architecture (3 credits)

This course is part of the History/Theory set of professional electives. Through a series of readings, debates and open discourse, the course will examine the evolution of contemporary architectural thought and teach students how to take a critical position on professional practice and issues that affect design today including sustainability, phenomenology, ethical responsibility and roles of the architect in the world in the 21st Century. Specifically, the course will focus on four sequential areas of study: 1) Historical Perspectives to address how we arrived to today and to understand your worldview; 2) The Tenets of Good Design from the aesthetics of color exploration to sustainability; 3) Phenomenology to examine Sensory and Emotional Explorations; and 4) Comparative Dialogues to explore where Architecture is going in the Post-Covid-19 era. PREREQUISITES: ARCH 301, ARCH 302

ARCH 232 Women in Architecture and Design (3 credits)

Lecture course that focuses on the contribution of women to architecture and design. Focuses on African American architects in the United States and also introduces a broader context of practitioners around the world. PREREQUISITES: Successful completion of first year.

ARCH 233 The Black Architect: A Historical Perspective (3 credits)

Seminar/independent research course that focuses on the history of Black architects and architecture in the United States to introduce students to an overview of the history, practice and influence of Black architects from the antebellum years through reconstruction, modern and present contemporary periods. PREREQUISITES: None.

ARCH 271 Digital Tools in Architecture II (3 credits)

Introduces architecture students to computer applications to architecture. Provides computer literacy for both business and graphic computer applications and systems management.

PREREQUISITES: ARCH 270.

ARCH 272 Digital Tools in Architecture III (3 credits)

Introduces architecture students to computer applications to architecture. Provides computer literacy for both business and graphic computer applications and systems management. Focuses on Autodesk Revit software. PREREQUISITES: ARCH 270.

ARCH 380 Special Topics in Architecture and Urbanism (3 credits)

Introduces a wide range of perspectives on architecture, urban and community design and planning issues. For current offerings will be available from the Department of Architecture. This course may be taken four times for credit as long as different topics are selected. PREREQUISITES: None. Open to non-majors.

ARCH 421 Housing Design and Equity (3 credits)

Focuses on providing a working understanding about roles, responsibilities, and opportunities available to the young architect in urban settings in the creation of affordable housing amidst the rapidly increasing gentrification of urban neighborhoods and communities. Students will study the impact of market forces, land cost, zoning, building codes, construction, development finance, public-private partnerships, and architecture/urban design in community development.

PREREQUISITES: Third year standing.

ARCH 430 Health and Design (3 credits)

This course will provide students with a framework to assess different urban and built environments from health and wellbeing viewpoints. Students in this class will learn about tools and techniques of designing healthier buildings and communities through a series of case studies, contemporary developments and best practices. Based on the readings, lectures, blackboard discussions, and assignments, students will become more capable of identifying opportunities to increase community health and well-being, and thereby improve the quality of life of urban populations within their work as architects, planners, health care practitioners and within other professional endeavors. PREREQUISITES: None.

ARCH 440 Ecology and Architecture (3 credits)

The course is an exploration of the influence of Ecology and Architecture. It includes Ecology, Biophilic design and Biomimicry. It also includes an implementation of biophillic design as evidence -based design method to improve health and wellbeing of the occupant. The influence of Biomimicry is explored as innovation method to achieve better performance in buildings. The course also explores both macrolevel urban ecology and microlevel building and its interaction with nature and people. PREREQUISITES: None.

ARCH 803 Independent Study (3 credits)

Independent study in the area of the student's professional interest. Students must complete an Independent Study Proposal and have it signed by their major advisors as well as the Department Chair.

PREREQUISITES: Fourth or fifth year standing and approval of the faculty and Department Chair.

ARCH 811 Directed Studies (3 credits)

Students work closely with an instructor or the department chair on a designated project within the Department of Architecture, faculty research or other initiative. Required guided independent study at the advanced level. PREREQUISITES: Department Chair approval.

OPEN ELECTIVE COURSES

Classes in this category may be either architecture (Architecture Professional Electives) or non-architecture (General/Liberal Studies Electives) courses.

See Course Descriptions of non-architecture classes

See <u>Howard University Student Registration Webpage for non-architecture classes</u>