PHOENICIA UNIVERSITY

Innovation . Inspiration . Integrity

College of Architecture and Design

Suggested Architecture Degree Plan

Effective for students enrolled from the academic year 2022-2023

2025-2026

College of Architecture and Design (CAD)

Program Description

The B.Arch. program at Phoenicia University requires students to complete 206 credit hours at the freshman level and 176 credit hours for those joining as sophomores. Of the total credit hours required, 110 credit hours must be completed in the core requirements, with the remainder allocated to engineering and technical courses, architecture electives and general education courses.

Graduation Requirements

- Students obtain a minimum "Program GPA" of 2.0; no rounding (e.g., a GPA of 1.99)—whatsoever—will be applied.
- Students obtain a minimum "Cumulative GPA" of 2.0; no rounding (e.g., a GPA of 1.99)—whatsoever—will be applied.
- Students obtain "Graduation Clearance" as detailed in the following section.

NB: To progress from one academic year to another, a minimum combined average of 70% must be obtained in the two-semester design studio courses.

University Graduation Requirements (30 credits hours)

To graduate with a Bachelor of Architecture, students have to complete 30 credit hours in university general requirements. The 30 credit hours in general educational requirements for degree programs will include the following courses list:

- 3 credits in Basic Sciences (Introduction to Data Science or Calculus and Analytic Geometry)
- 3 credits in Social Sciences
- 6 credits in English (English I and English II)
- 6 credits in Civilization (World Civilization 1 and World Civilization 2)
- 3 credits in Arabic
- 3 credits in Communication (Public Speaking)
- 3 credits in Computing (Introduction to Computing for Arts)
- 3 credits in Globalization & World Cultures

College of Architecture and Design Graduation Requirements

The College of Architecture and Design requirements will include the following additional requirements:

- 110 credits of mandatory core Architecture courses:
  - 10 design studio courses (60 credits)
  - 8 history & theory courses (24 credits)
  - 2 architectural drawing & representation courses (6 credits)
  - 2 building construction & technology courses (6 credits)
  - 2 professional practice courses (6 credits)
  - 2 professional training internships (2 credits)
  - 1 survey course (6 credits)

- 12 credits of mandatory Engineering & Technical courses
  - 2 Structural Systems Courses (6 credits)
  - 2 Building & Environmental Systems Courses (6 credits)

- 24 credits of Architecture Elective Courses

Graduation Clearance

Upon reaching senior-level status, students must fill out the graduation clearance form after completing all their degree requirements. The graduation clearance form should be signed by the following personnel: Departmental Coordinator, Dean of College, IT Director, Library Coordinator, Finance Director, Registrar Director, Career Center Director, Head of the Exit Interview Committee, President, and Chancellor. Failure to do so will delay graduation.

Architecture Core Courses

ARCH 200. Design Studio I (Foundation Level part I – Basic Design) - 6 cr.

This course is the first of ten design courses which represent the backbone and essential core of the program. It is to be taken in conjunction with, or after, the first of two basic and introductory courses in the theory of architecture. It represents a general introduction to design and making and is intended to train, cultivate and develop general competence in basic form making and material sensibilities. The course also prompts creative and experimental thinking through an interesting and playful first-time encounter. The eventual intention is to form an indispensable basis for architectural and artistic production as it erases the boundaries between craft instruction, fine art training and architectural engineering education. This course introduces basic and generic architectonic concepts of parts vs. whole, mass, form, shape, volume, plane, line, point, field, order, patterns, and others. **Corequisite: ARCH 207.**

ARCH 210. Design Studio II (Foundation Level part II) - 6 cr.

Building on the Design Studio I, this design studio course in the spring of first year is dedicated to slightly more architecturally relevant and semi-specific architectural notions and issues that influence architectural design and shape the buildings (overall functional viability, circulation and compartmentalization, grounding, orientation, scale, basic and elementary structural principles, in addition to dealing in a generic and preliminary manner with the archi-tectonics of solid and void, positive and negative, form and space, interiority and exteriority, core and shell, enclosure and skeleton, envelope, skin, texture, fenestration, among others). This course addresses the skills needed to properly tackle these issues and notions, stressing design processes and methods as well as systematic didactic approaches and representation in sectional modeling and sectional projections. The course emphasizes design as a medium of inquiry and translation through hands-on and thoughtful exercises. **Prerequisite: ARCH 200; Corequisite: ARCH 217.**

ARCH 300. Design Studio III (Archi-nature I: Building in Natural Environment) - 6 cr.

In general, this course, the first of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the two foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to a more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Program and functional scope, site, scale and structure are becoming more specific. Design methodology that is process oriented is stressed along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, use and users. More specifically, this design studio focuses on the dialectic

relationship of material, structure, architectural form and site. Materials, structure and constructional techniques in the natural environment are investigated. It is purposefully taught concurrently with relevant technical courses like Structural Systems and Building Construction I. Students are also introduced to comprehensive site analysis. **Prerequisite: ARCH 210.**

ARCH 310. Design Studio IV (Archi-nature II: Landscape) - 6 cr.

In general, this course, the second of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is stressed along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to another until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, making, use and users. More specifically, this particular studio focuses on the dialectic relationship between built or architectural form and natural form as integral and complementary to each other. Constructional techniques in the natural environment are further investigated. Students are also introduced to comprehensive site analysis along with landforms. This course is purposefully taught concurrently with relevant technical courses. **Prerequisite: ARCH 300.**

ARCH 400. Design Studio V (Environmental Architecture I) - 6 cr.

In general, this course, the third of eight-design full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is encouraged along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, use and purpose. More specifically, this design studio focuses on environmental issues and the integration of green strategies into the design of small to medium size single or mono use projects in natural and rural settings. **Prerequisite: ARCH 310.**

ARCH 410. Design Studio VI (Environmental Architecture II) - 6 cr.

In general, this course, the fourth of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of

complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is encouraged along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, use and users. More specifically, this design studio focuses on environmental issues and the integration of green strategies into the design of medium size mixed-use projects with a housing component and contextual dimension in urban settings. **Prerequisite: ARCH 400.**

ARCH 500. Design Studio VII (Public Architecture and Urban Design I) - 6 cr.

In general, this course, the fifth of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is encouraged along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, use and users. More specifically, this design studio addresses public buildings in urban environments. Students are introduced to different themes and methods in understanding architecture in the urban realm as they look at urban areas with reference to historical, cultural and socio-economic factors. In addition, the course covers the study of small to medium scale projects, with emphasis on the fundamental principles of spatial design in the built environment and an urban scale and within real urban contexts. In this particular design studio, students should apply the professional knowledge and technical skills acquired in all previous design studio courses. Projects assigned are hybrid and complex buildings with different scopes and themes, addressing the public domain (inclusive of building codes and zoning regulations and other trades coordination). This course additionally expounds the process of hypothetical examination of space with accentuation on the communication of ideas through various representational models and tools. **Prerequisite: ARCH 410.**

ARCH 510. Design Studio VIII (Public Architecture and Urban Design II) - 6 cr.

In general, this course, the sixth of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is encouraged along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking

relative and specific to its time, place, use and users. More specifically, this design studio addresses public buildings in urban environments. In this particular design studio, students continue to apply the professional knowledge and technical skills acquired in all previous design studio courses with particular emphasis on those acquired in ARCH 500. Projects assigned are large-scale hybrid and complex buildings with different scopes and themes, addressing the public domain along with urban design and landscape with all relevant issues and implications. **Prerequisite: ARCH 500.**

ARCH 600. Design Studio IX – Graduation Project part I (Theory & Thesis) - 6 cr.

In general, this course, the seventh of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is encouraged along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, use and users. This course is the first component of a year-long thesis project. It consists mainly of a theoretical understanding and critical intellectual understanding inclusive of topic and thesis investigation and relative design research components. Each project is a book inclusive of a summary of the thesis, literature review and case studies examined, site selection, program developments and design explorations as well as proposed strategies. **Prerequisite: ARCH 510.**

ARCH 610. Design Studio X – Graduation Project part II (Design) - 6 cr.

In general, this course, the last of eight full-fledged architectural design studio courses, systematically and sequentially expands upon the theoretical, critical, empirical and technical skills and information acquired in the foundation level studios. In this course, there will be a gradual increase in the level of complexity, inclusiveness, conclusiveness and size, in addition to more elaborate level of articulation, representation (verbal, visual and otherwise) as well as resolution (functional, structural, environmental and formal as well). Design methodology that is process oriented is encouraged along with adopting design investigation that is research based. In this course, the pedagogical process proceeds from one level to the upper until the sequence culminates in a full-fledged and very particular design undertaking relative and specific to its time, place, use and users. Design Thesis, or Final Year Project, is the culmination of undergraduate education in Architecture. This course is the second component of a year- long thesis project. It consists of an architectural design intervention based on the issues researched in the first component. Students work independently in a studio-based setting. **Prerequisite: ARCH 600.**

ARCH 215. Architectural Artistic Drawings & Representation I - 3 cr.

This course is the first in a sequence of two mandatory representation courses. It enables students to be familiar with graphic free-hand and life communication in architecture, as they explore freehand representation of form, space, landscape and urban scenery. Students practice sketching and other graphic forms to acquire necessary skills and confidence in real-life drawing and abstract concepts representation of sketching. This course is predicated on the premise that drawing is not only a representative and communication tool, but rather a thinking tool as well.

ARCH 205. Architectural Technical Drawings & Representation II - 3 cr.

In addition to properly introducing the students to the basic tools and techniques of technical drawing (mainly in pencil and ink), this intense course in manual formal architectural representation covers basic design drawing, form creating and representing conventions in 2D and 3D, namely orthogonal (plans, sections, and elevations), none orthogonal (axonometric and isometrics), and perspective drawings. It focuses first on basic two-dimensional projections and representation of architectural objects and environments through conventional orthographic projections (frontal and oblique sectional, planar and elevation). The course addresses then, and incorporates, auxiliary and elementary three-dimensional drawings, isometric and axonometric, basic shades and shadows before the student would be ready and more equipped to take on more advanced three-dimensional drawings in the following digital technical drawing elective courses.

ARCH 207. Basic and Introductory Architectural Theory – Part I - 3 cr.

This course, the first in a series of three, is a corequisite (or prerequisite) of the first (foundation) design course (basic design). It represents a basic and fundamental, yet comprehensive and inclusive, introduction to theory of architecture and design. It focuses on the most essential principles, theoretical underpinnings, fundamental notions and primary elements forming the theoretical basis and groundings of architecture and design processes, as well as basic form making strategies. (Elements include morphological, typological, archetypal, spatial, functional, experiential, contextual and structural elements). **Corequisite: ARCH 200.**

ARCH 217. Basic and Introductory Architectural Theory – Part II - 3 cr.

This course, the second in a series of two courses of introductory and basic architectural theory, is complementary to foundation level studios. It represents a basic and fundamental yet comprehensive and inclusive introduction to theory of architecture and design. It focuses on the most essential principles, theoretical underpinnings, fundamental notions and primary elements forming the theoretical basis and groundings of architecture and design processes as well as basic form making strategies. (Elements include morphological, typological, archetypal, spatial, functional, experiential, contextual and structural elements). **Prerequisite: ARCH 207; Corequisite: ARCH 210.**

ARCH 307. History of Architecture I - 3 cr.

This course is the first in a series and sequence of four complementary courses which represent a comprehensive survey of the world architectural history. The course surveys the origins of architecture since pre-history covering antiquated and archaic circumstances (mostly in the near east, Mesopotamia and Egypt) as well as classic times (Greek, Hellenistic and Roman architecture) till the end of finish century AD. The focus is not only on builders, buildings and their formal language, but rather on cities and urban settings as well, in addition to the cultural and social foundation (as opposed to the notion of style).

ARCH 317. History of Architecture II - 3 cr.

This course is the second in the same series of the four survey courses, which follow similar approach except that it covers about a thousand years of the medieval ages and architecture surveys since early Christianity till the Renaissance times (counting the Romanesque, Byzantine, Islamic, and Gothic periods). The attention is on the structures; formal improvement, urban areas and urban settings too, within a cultural framework. **Prerequisite: ARCH 307.**

ARCH 407. History of Architecture III - 3 cr.

This course is the third in the same series of the four survey courses, which follow a similar approach except that it covers around 5 centuries of Renaissance, Mannerism, the Baroque, the edification, historicism and modernization till pre and early modernism at the end of the 19th C. The attention is on the structures, formal improvement, urban areas and urban settings too, within a cultural framework. **Prerequisite: ARCH 317.**

ARCH 417. History of Architecture IV - 3 cr.

This course is the fourth and last in integral courses, which represent a complete survey and historical overview of the world of architecture. It covers around 100 years, exploring the developments of the twentieth century inclusive of contemporary architecture, in addition to late modern, neomodern and postmodern developments. **Prerequisite: ARCH 407.**

ARCH 507. Introduction to History & Theory of Urban and Landscape Design - 3 cr.

This course is an overview of the urban design history that focuses on the principles and the real-world reflections on the under study urban design cases, between the classical and the modern age. It also provides an outline of the historical advancements of landscape design with a study of the principles, ideas and applied thoughts behind the major landscape design cases under study, from the classical period to the modern one. **Prerequisite: ARCH 417.**

ARCH 220. Building Construction & Technology I - 3 cr.

This course is the first of two on building construction materials, methods and techniques. It should at once complement and build on technical drawing, design studios and structures courses. In this course, students are introduced to the tectonics of architecture and to the discipline's tradition practiced in the form of the "Art of Building". Students learn materials' properties, construction methods, assembly systems, and environmental aspects (of masonry, concrete, cast- in-place and precast systems, steel and wood) with more stress on local and regional materials extraction, manufacture, erection, crafting, detailing and jointing of various materials. This course covers a basic survey of the conventional construction techniques inclusive of wood construction, enforced concrete, concrete block, steel, masonry and glass, and their relevant diverse properties. This course also introduces site works and a planning of definite set of working drawings for execution.

ARCH 225. Building Construction & Technology II - 3 cr.

This second building course concentrates on the building enclosure and on finishing materials and methods. In the first part, the course covers components of the building envelope with their ecological aspects. Topics include thermal protection and insulation, wall sections, exterior walls, glazing and roofing systems, damp and waterproofing, fenestration systems, windows and entryways, solar control, shading devices and sun breakers. This course focuses on specific design issues such as jointing, insulation and finishes. In this course, students learn how to plan and detail building envelopes in relation to the natural elements, light, water, wind and temperature extremes, security, safety and control. **Prerequisite: ARCH 220.**

ARCH 350. Regional Architectural Survey and Documentation - 6 cr.

This empirical and hands-on course enables students to survey, analyze, study and properly document local built environment in a certain local or regional zone. On a macro scale, the zone of concern and interest is the Eastern Mediterranean Basin and the Middle East. While on a smaller level and micro scale, it focuses on the sub-provincial districts inside Lebanon and its southern part in particular. It should be equally inclusive of old and new, authentically historic and contemporary, formal and informal type of architecture and built environments, as far as a scale and scope of undertakings.

ARCH 320. Professional Practice I - 3 cr.

This is the first of two related and sequential courses that expose students to the different scopes and aspects of design professional practice. Students explore the formation and management of a design-focused practice, stressing on several skills including financial planning, marketing strategy, navigating legal and regulatory requirements, and on ethics and professional conduct.

ARCH 325. Professional Practice II - 3 cr.

The second of the two related courses cover the architect's responsibilities in delivering all relevant tasks right from the early (preliminary and conceptual) design stage through post-development and post-tendering. Project management themes and topics include, but are not limited to, planning and scheduling, identifying project services and drafting contracts, regulatory building codes and directions review, trades coordination and management of documentation, budgeting and cost control, project delivery techniques, supervision and logistics of project execution, and post-occupancy evaluation including maintainability and sustainability. **Prerequisite: ARCH 320.**

ARCH 564. Architectural Programming - 3 cr.

The course manages structural programming as a plan procedure that does not go before outline but rather works with it. The aim is to depict an outline system in view of scholastic research and functional information to integrate and decipher a venture brief – customer necessities, legitimate directions, spatial requirements, and so forth – to plan methodologies and arrangements, through the combined effort of different members and leaders. The course is imagined to be given in close coordinated effort with outline studios to fortify the extension amongst hypothesis and practice. **Prerequisite: ARCH 320.**

ARCH 330. Professional Internship I - 1 cr.

This professional training or internship course should last no less than eight weeks at a recognized and proper local or international architecture office. Students are expected to gain and develop important professional experience in the domain. Students become eligible to register for this course after completing 90 credit hours. **Prerequisites: ARCH 410, ARCH 217, ARCH 225, ARCH 568, INTD 311, and BCOM 300.**

ARCH 335. Professional Internship II - 1 cr.

This is also another eight-week professional training and internship course at a renowned local or international architecture practice. Students should further enhance and apply their theoretical and practical knowledge and acquire more advanced professional experience in the field of Architecture. **Prerequisite: ARCH 330.**

Core Engineering & Technical Courses

ARCH 230. Structural Systems I / Building & Materials Mechanics – Statics - 3 cr.

This course, the first of two, focuses on the fundamentals and basic notions and standards of both basic and introductory material science and basic structural analysis. It covers the principles of force and moment vectors, the distribution of loads, the use of free-body diagrams and the internal forces, with applications more to compression and tension, and less to shear and moment diagrams under different loading conditions. This course also covers the relationship between the structure of materials and their mechanical properties. It mainly focuses on the study of materials' strengths and resistance. This course includes both lectures and lab work, where students are exposed to how different materials and the structural components of a building work, react, and how they can be impacted.

ARCH 235. Structural Systems II - 3 cr.

In this second structures course, students will gain a profound and more in-depth knowledge of structural systems as they impact, complement and enhance the architectural design. The course explores synergies of form, structures and materials with an emphasis on aesthetics and efficiency through an empirical and applied rather than mere abstract approach. Lectures and lab work are integrated to develop an understanding of structures as integral to the creative design process rather than an afterthought and problem- solving issue. The course allows students to take active part in developing the most proper structural design strategies, and to assume a leading role in the design and construction process and properly communicating with structural engineers. Numerical calculation methods used are proposed for rough estimation of sizes and loads. **Prerequisite: ARCH 230.**

ARCH 240. Building and Environmental Systems I / Climate & Electro Mechanical Engineering - 3 cr.

This course addresses sustainability and climatically responsive architecture and proper site planning. After a concise diagram of vitality issues as they identify with architecture and urbanism, the course looks at the reciprocal interaction between climate, inhabitants and buildings, and introduces passive design and manageable site planning. A prologue to climatic parameters and thermal comfort is followed by an investigation of the elements of sun, wind, ventilation, and light as they relate to passive design, concentrating on building construction and sun-oriented radiation, natural ventilation procedures and direct and indirect daylighting design standards and applications. The course additionally addresses other sustainable design techniques and incorporates an overview of active systems (solar, photovoltaic boards, geothermal), water reduction and reuse, and green materials.

ARCH 245. Building and Environmental Systems II / Climate & Electro-Mechanical Engineering - 3 cr.

This course is the second of Building and Environmental Systems Course. It offers students a design-oriented investigation of environmental control, life security and building services systems, comprising of electrical, lighting, warming ventilation, aerating and cooling, water and waste, acoustics, fire safety and fire protection, and vertical transportation. The course covers fundamental standards, applications and execution of ecological control systems, and addresses these frameworks as they affect building planning and design, and inhabitant health and comfort. Key issues are covered in this course such as maintainable design techniques, energy proficiency, advancement of indoor ecological quality and monetary soundness. **Prerequisite: ARCH 240.**

Architecture Elective Courses

This group of courses represents advanced and specialized offerings in two major areas. The first comprises topics in architectural history, theory and criticism. The second is mainly the area of technical and applied skills (workshop, manual and digital drawings, media and graphics as well as photography among others).

INTD 200. Media & Graphics - 3 cr.

This course is designed to instruct students on the ever-changing digital world, as well as to provide hands-on experience with industry standard software and equipment. The curriculum covers a wide range of areas, appealing to various disciplines. The course's content gives exposure to computer platforms and the primary software needed in computer graphics application, addressing the basics of generating and manipulating images using digital media, and covers monochrome patterns, control and mix of colors, raster images, scanning, pixel and vector graphics. It also includes the basic concepts of four-dimensional design, in which properties of time and movement are explored (animation, sound and moving image).

INTD 201. Shop Techniques - 1 cr.

This course is a foundational course that prepares students to use different materials (e.g. wood, metal, etc.) in different processes such as molding and casting. It covers shop safety and shop operation practices.

INTD 311. Computer Graphics - 3 cr.

This course addresses architectural applications in computer graphics for drafting of architectural plans, orthogonal projections, sectional views, auxiliary views, dimensions and detailing. It covers aspects like file management, accessing network printing, basic image creation and manipulation. Applications focus on using a computer to generate CAD drawings and designs (AutoCAD). **This course is equivalent to Engineering Drawing (GENG 205).**

INTD 312. Advanced Computer Graphics - 3 cr.

This course is the second of two units focusing on computer graphics, covering the principles of three-dimensional visualizations. The course stresses modeling in Rhino and rendering using 3D Max and Vray, prompts three-dimensional modeling using computer modeling software, and covers techniques of manipulating surfaces and solids, creating model views, and taking sections of the model for representation. Additionally, the course covers outputting a three-dimensional model into rendering software to create realistic scenes and views for presentation. **Concurrent Prerequisite: INTD 311.**

INTD 350. Textiles for Interiors – 2 cr.

This course explains the effects of fibers, yarns, fabrics and finishes on appearance and performance. Students study the characteristics and the construction of textile products used in interiors. Students also identify and research kinds and features of materials and finishes.

INTD 351. Lighting Design - 3 cr.

The course focuses on the perceptual and physical application in architectural lighting design. Students in this course explore how to set up moods light manipulation in buildings and spaces represented by fir equipment, drawing conventions, and digital visualization (renders).

INTD 353. Advanced Course in Geometry for Designers - 3 cr.

In this course, students are introduced to visual mathematics, enhancing their understanding of spatial relationships and their ability to visualize complex forms. The course provides a comprehensive overview of both two-dimensional and three-dimensional Euclidean geometries, including projection, orthographic, space, analytical, fractal, and topological geometries, among others. A strong emphasis is placed on descriptive geometry due to its significant relevance to architectural design.

ARCH 206. Advanced Technical Drawing III - 3 cr.

This course is an advanced level of the technical drawing that provides a comprehensive overview of the graphic representation of the built and natural environments. It focuses on application of advanced technical drawing in architectural projections: plans, sections and elevations, with 2D and 3D representations, inclusive of axonometric, perspective and shadows as they apply to 2D and 3D drawings. **Prerequisite: ARCH 205.**

ARCH 352. Theory of Color - 3 cr.

This course is a study of the additive and subtractive principles of color theory as they apply to the visual communication design process. The course emphasizes on color mixing, color relationships, visual impact as well as psychological and symbolic uses of color. It elaborates on the design principles related to colors and stresses the basic principles of visual design, allowing students to experiment with them. **This course is equivalent to INTD352.**

ARCH 517. Advanced Topics in Architectural Theory - 3 cr.

This course builds on the two courses of basic and introductory architectural theory offered in the first year of the program. Additionally, the course maps to the sequence of architectural history, including the history of architectural theory. **Prerequisite: ARCH 217.**

ARCH 518. Modern, Post-Modern & Contemporary Movements in Architecture - 3 cr.

This course builds on the sequence of architectural history survey courses and expands on the movements, trends, schools, theories, buildings, and architects of the past decades. **Concurrent Prerequisite: ARCH 407.**

ARCH 550. Islamic Art & Architecture - 3 cr.

This course extensively surveys and investigates the development of Islamic architecture since early Umayyads till the most influential Islamic empires of the early modern era (the Ottomans, the Mughals, and the Sfavids). It reviews and analyzes many paradigmatic architectural visions which led to the creation of unique regional styles in architecture. Prime examples of monuments will be closely surveyed and examined. **Prerequisite: ARCH 307.**

ARCH 551. Morphogenesis of the Lebanese Contemporary City - 3 cr.

This course investigates the cultural hybridity of Beirut especially following the colonialism period. It explains how Beirut responded to early modernization through the assimilation of Western architectural trends. Exploring the transitional period from the Medieval Arab-Islamic town to a showcase of the French Mandate will enable students to read a contemporary city through its colonial history. In this course, students realize the social, cultural and economic change as reflected in architectural buildings. Students also engage in surveying a local case study along with a field survey of the urban fabric and its historical evolution, as well as context and environment. Critical factors other than climate, topography and typology are also considered like building technology and building codes, as to how all have impacted urban morphology. **Prerequisites: ARCH 507 and ARCH 350.**

ARCH 553. Regional Architecture - 2 cr.

This course represents an analytical and extensive historical overview of the provincial architecture heritage. It explores the cultural disciplines and practice from classic to contemporary works in regional architecture. It concentrates on the traditional residential architecture of Lebanon. In this course, students examine setting and building systems to appreciate the advancement of regional architecture and design in the 19th and 20th centuries. Both planned and informal or unplanned regional domestic architecture are explored as core contextual investigations, with extensive contextual investigations, and proper documentation of certain public and private landmarks. **Prerequisite: ARCH 350.**

ARCH 554. Theories of Conservation and Reconstruction - 3 cr.

This course exposes several theories of architectural preservation and reconstruction. Students will be introduced to ancient monuments conservation and some theories and approaches of post-war reconstruction as well as urban conservation and regeneration. Topics range from authenticity, memory historical awareness, preservation and conservation. These subjects will be presented focusing on case studies from Lebanon and the Middle East. This course furnishes students with powerful and proficient instruments to manage protection inside the imperfect structure of current Lebanese enactment. Students will be acquainted with issues that are much of the time experienced in the act of engineering in Lebanon. These issues include: the appearing need of over-immersing the building site, adjusting existing structures to current exigencies, and the moral duty of protecting authentic structures. This course also explores different takes on worldwide reconstruction interventions from WWI till the present. The emphasis will be on Lebanon as a main case study to discover, evaluate, and oversimplify from. **Prerequisites: ARCH 407 and ARCH 350.**

ARCH 555. Planning Policies - 2 cr.

The course surveys development and planning policies, investigating governance and the spatial, social and environmental impacts on the built and un-built locations. Through the analysis of certain studied urban contexts, the course examines the elaboration and evolution of relevant policies through strategies. **Prerequisite: ARCH 507.**

ARCH 556. Law and the Built Environment - 2 cr.

This course tends to offer a closer insight to building codes in Lebanon and the region, with an overview to other codes (Europe, the Arab World) as comparative tools. It introduces students to the local laws leading the building industry. It investigates the relations between the guidelines that represent the generation of the constructed condition, building hones, and the state of the city. Rules include the unpredictable arrangement of state administered directions (e.g. building law, zoning directions, and urban arranging law) and additionally socially endorsed standards (e.g. security controls). The course deals with the comprehension of law, how it is administered, how it is completed, how it crosses with different standards in the setting where it is executed, and how it influences building rehearses. **Prerequisite: ARCH 210.**

ARCH 558. Photography - 3 cr.

This course offers students an inclusive and comprehensive understanding of the color photography, its techniques, and aesthetics. It offers a pragmatic involvement in utilizing the camera and light meters. The course incorporates slide addresses and fieldtrips in addition to introductions given by master building picture takers.

ARCH 559. Digital Tools - 3 cr.

This course is an introduction unit to the use of parametric digital tools in architecture, along with the application of these tools in today's practice. The course introduces the student to computational thinking methods and how to formulate a solution for a problem using computer algorithms. In this course, students use Grasshopper and Rhino to learn parametric modeling, data analysis and data visualization, rationalizing complex geometry, generative design and evolutionary solvers, and Inter-Operability. **Prerequisite: INTD 312.**

ARCH 560. Design Technology I - 3 cr.

This course discusses the core and essential components of a building - structural systems, envelopes, and foundation. It includes a basic survey of the conventional construction techniques inclusive of wood construction, enforced concrete, concrete block, steel, masonry and glass, and their relevant diverse properties. **Prerequisite: ARCH 225.**

ARCH 561. Design Technology II - 3 cr.

This course explores the interior design applications and addresses the different finishing materials and methods used in interiors. It focuses on specific design issues such as jointing, insulation and finishes. **Prerequisite: ARCH 560.**

ARCH 562. Digital Fabrication - 3 cr.

This course focuses on the Maker Ethos of prototyping and iterative thinking to refine and optimize a design, where students learn the application of digital tools in Fabrication. In this course, students also learn wood and metal fabrication processes, joinery and mechanical connection methods. At the workshop, students build their own projects on a one-to-one scale (a furniture piece) and collectively collaborate on building a shared project under the supervision of their instructor (1:1 scale pavilion). In addition, students use laser cutting and 3D printing as means of prototyping.

ARCH 563. Building Systems Technology - 3 cr.

This course provides a prologue to building frameworks innovation. The course predominantly concentrates on the conduct of structures as frameworks, and where conceivable will give extra material to the outline of structures against outrageous conditions such as fires, blasts, uncommon tremors and wind. All of the above notions will be presented with least (assuming any) response to numerical conditions, as emphasis will be placed more on understanding the conduct of various basic frameworks under different stacking situations. **Prerequisite: ARCH 245.**

ARCH 565. Algorithmics - 3 cr.

This course explains the concepts, tools and techniques in which parametric programming can result in integration of concept and implementation in architectural design. **Prerequisite: ARCH 206.**

ARCH 566. Counter Encounter - 3cr.

The course acquaints students with advanced outline and creation, through addresses and a connected venture, in which they will test and try different things with new computerized and manufacture systems. Computerized manufacture, between headways in programming, reproduction, and hardware, is pushing practice today towards greater many-sided quality. In this course, students explore how these procedures have put forward an upset in the way we make structures, where the way toward making has profoundly transformed from the customary grouping of configuration break down form to a more intuitive and integrative process that intercrosses expository instruments with outline, recreation and creation. **Prerequisite: ARCH 206.**

ARCH 568. 3D Max - 3 cr.

This course offers a new vision of architecture with the exponential digital improvement. The course enables students to use efficient software tools in order to build schematic and visual design: 3DMax. This course provides architecture and design students with the skills needed to fully fulfill the formation and presentation of architectural concepts and proposals.

ARCH 569. Building Information Modelling (BIM) in Practice - 3 cr.

In this course, students learn the fundamentals of BIM and its uses in today's practice: modeling, collaboration, documentation, and visualization. Using Revit, the students individually and collaboratively work on a project from inception until final documentation, going through all the phases of a design project as in a professional practice (site, topography, zoning, building, annotation, schedules, and documentation). Students also explore building their own families and the difference between type and instance parameters, in addition to how to create parameters to manipulate the different aspects of an architecture project.

ARCH 570. Advanced Methods in Building Information Modelling (BIM) - 3 cr.

This course is an advanced unit in BIM methods requiring prior knowledge in Revit. The course covers building advanced curtain walls using adaptive components families, collecting data from the model for fabrication, and using massing elements as a base of a project. In this course, students learn how to build nested families and manage multiple models corresponding to the same project. The course also stresses dynamo as a parametric method to create Revit elements and analyze data in the model. **Prerequisite: ARCH 569.**

BCOM 300. Workplace Etiquette

This is a mandatory workshop that all students should successfully complete prior to their internships. The course comprises a series of workshops that focus on workplace etiquette and communication in formal and professional settings. In this course, students develop their business etiquette and professional practice skills in addition to their presentation skills so that they are well-equipped for their internships. **Prerequisite: ENGL 201.**

Degree Plan

(1) Architecture Courses	
Core Architecture Courses	108 credits
Architecture Elective Courses	24 credits
Professional Internship	2 credits
Total Architecture Courses	**134 credits**
Engineering and Technical Courses	12 credits
(2) General Education Courses	
Civilization	6 credits
English	6 credits
Communication	3 credits
Arabic	3 credits
Basic Sciences	3 credits
Social Sciences	3 credits
Globalization & World Cultures	3 credits
Computing	3 credits
Total General Education Courses	**30 credits**
Total	**176 credits**

Suggested Architecture Degree Plan

First Year					
Fall 1			**Spring 1**		
Course	**Title**	**Wt.**	**Course**	**Title**	**Wt.**
ARCH 200	Design Studio I (Foundation Level part I – Basic Design)	6	ARCH 210	Design Studio II (Foundation Level part II)	6
ARCH 215	Architectural Artistic Drawings & Representation I	3	ARCH 205	Architectural Technical Drawings & Representation II	3
ARCH 207	Basic and Introductory Architectural Theory – Part I	3	ARCH 217	Basic and Introductory Architectural Theory – Part II	3
ENGL 201	English I	3	ENGL 202	English II	3
Total Credits		**15**	**Total Credits**		**15**

Summer 1		
Course	**Title**	**Wt.**
CIVL 201	World Civilization I	3
INTD 200	Architecture Elective (Media & Graphics)	3
CMPS 202	Introduction to Computing for Arts	3
Total Credits		**9**

Second Year					
Fall 2			**Spring 2**		
Course	**Title**	**Wt.**	**Course**	**Title**	**Wt.**
ARCH 300	Design Studio III	6	ARCH 310	Design Studio IV	6
ARCH 307	History of Architecture I	3	ARCH 317	History of Architecture II	3
ARCH 220	Building Construction I	3	ARCH 225	Building Construction II	3
ARCH 230	Structural Systems I / Building & Materials Mechanics – Statics	3	ARCH 235	Structural Systems II	3
INTD 311	Architecture Elective (Computer Graphics)	3	INTD 312	Architecture Elective (Advanced Computer Graphics)	3
Total Credits		**15**	**Total Credits**		**18**

Summer 2		
Course	**Title**	**Wt.**
ARCH 350	Regional Architectural Survey & Documentation	6
ARCH 568	Architecture Elective (3D Max)	3
Total Credits		9

Third Year					
Fall 3			**Spring 3**		
Course	**Title**	**Wt.**	**Course**	**Title**	**Wt.**
ARCH 400	Design Studio V	6	ARCH 410	Design Studio VI	6
ARCH 407	History of Architecture III	3	ARCH 417	History of Architecture IV	3
ARCH 240	Building and Environmental Systems I / Climate & Electro- Mechanical Engineering	3	ARCH 245	Building and Environmental Systems II/ Climate & Electro-Mechanical Engineering	3
ARCH 559	Architecture Elective (Digital Tools)	3	XXXX XXX	Architecture Elective	3
BCOM 300	Workplace Etiquette (Mandatory Workshop)		COMM 201	Public Speaking	3
Total Credits		**15**	**Total Credits**		**18**

Summer 3		
Course	**Title**	**Wt.**
ARCH 330	Professional Internship I	1
Total Credits		1

Fourth Year					
Fall 4			**Spring 4**		
Course	**Title**	**Wt.**	**Course**	**Title**	**Wt.**
ARCH 500	Design Studio VII	6	ARCH 510	Design Studio VIII	6
ARCH 507	Introduction to History & Theory of Urban Design and Landscape Design	3	ARCH 564	Architectural Programming	3
ARCH 320	Professional Practice I	3	ARCH 325	Professional Practice II	3
SOCL 210	Globalization & World Cultures	3	XXXXXX	Architecture Elective	3
			CIVL 202	World Civilization II	3
Total Credits		**15**	**Total Credits**		**18**

Summer 4		
Course	**Title**	**Wt.**
ARCH 335	Professional Internship II	1
Total Credits		1

Fifth Year					
Fall 5			Spring 5		
Course	**Title**	**Wt.**	**Course**	**Title**	**Wt.**
ARCH 600	Design Studio IX - Graduation Project part I (Theory & Thesis)	6	ARCH 610	Design Studio X- Graduation Project part II (Design)	6
XXXX XXX	Architecture Elective	3	XXXX XXX	Basic Science Elective	3
XXXX XXX	Social Science Elective	3	ARAB 201	Arabic	3
Total Credits		**12**	**Total Credits**		**12**

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