The University of Mindanao

COLLEGE OF ARCHITECTURE AND FINE ARTS EDUCATION
BACHELOR OF SCIENCE IN ARCHITECTURE
COURSE OFFERINGS FOR SY 2022-2023

FIRST YEAR			
First Semester			
AR 111/S	Architectural Design 1-Introduction to Desi	2.0	This course is designed to explain and understand the various Design fundamentals involving basic creative design exercises with emphasis on various space, form and mass. It also includes exercises that discover their ability to manipulate basic form and shapes into the basis of architectural design.
AR 112/S	Architectural Visual Communications 1-Gra	3.0	The study of visual communication, typography, alphabet of lines and their applications and the use and care of instruments, geometric construction, use of scale, mensuration and dimensioning. Emphasis is given to the study of the theory of projection with analysis of the relationship between points, lines and planes in space. Includes exercises on surface development and graphic presentation.
AR 113/S	Architectural Visual Communications 2-Visual Tech 1	2.0	This course is designed to study the visualization and graphic presentation in the form of freehand drawing including still-life and architectural forms and entourage using different media, in black and white/monochrome.
AR 114/S	Theory of Architecture 1	2.0	This course is designed to present and explain the various design theories with emphasis on perceptual and proxemics sensitivities in organizing forms and space.. These will provide teachers the needed knowledge and understanding to facilitate quality learning and teaching.

CEE 100	Math Plus	3.0	This course deals with the introduction to theories, relations, functions, and operations on expressions in General Algebra and the theory and application of trigonometric functions, identities and equations; solutions on triangles; law of sines; law of cosines; inverse trigonometric functions.
Mth 206	Solid Mensuration	2.0	This course deals with the study of plane surfaces and solid objects. Solid Mensuration covers measurement of plane figures, cubes, parallelepipeds, pyramids, prisms, spheres, frustums of a pyramid and cone.

Second Semester			
AR 121/S	Architectural Design 2-Creative Design and Fund'l	2.0	This course is designed to explain and demonstrate design exercises involving anthropometrics, modular coordination, functional relationship and activity circuits. This includes exercises that will help the student to explore and understand deeper the principles and processes on how to do the basic techniques and tools in designing spaces.
AR 122/S	Architectural Visual Communications 3-Gra	3.0	An introduction to measured drawings applying conventions, the parts of pictorial presentation and perspective projections, plotting of shades and shadows in both orthographic and perspective drawings.
AR 123/S	Architectural Visual Communications 4-Visual Tech 2	2.0	This course is designed to study the introduction of color as form-giver, psychology of color, theories of light and color; scientific and aesthetic considerations of color; study and exercises on the use of color as presentation tool; architectural presentations and outdoor color rendering using appropriate techniques in color mixing and application and various media such as watercolor, acrylic, paints, pastel, etc.
AR 124	Theory of Architecture 2	2.0	This course is designed to evaluate the current concepts, goals, processes and methodologies applicable to architectural design. These will provide teachers the needed knowledge and understanding to facilitate quality teaching.

AR 125	History of Architecture 1	3.0	This course is designed to present and explain the different Architectural manifestation of thoughts from the beginning of civilization to the Byzantine Period. These will provide prospective teachers needed knowledge and understanding to facilitate quality learning and teaching.
Mth 207	Differential & Integral Calculus	6.0	This course is divided into two parts: first, the differential calculus which covers functions, limits, derivatives, implicit differentiation, derivatives of both algebraic and transcendental functions and other applications; second, integral calculus which covers anti-derivatives, indefinite and definite integrals, techniques of integration and its applications.

SUMMER			
AR 126/S	Architectural Design 3 - Creative Design in Arch'l Interiors	3.0	This course is designed to explain and presents the design guidelines and considerations emphasizing on the development and manipulation of the interior spaces. This includes exercises stressing the value of programming, orientation, and inter- relationship of interior spaces.
SECOND YEAR			
First Semester			
AR 211/S	Architectural Design 4 - Space Planning 1	3.0	This course is designed to explain and present topic about Space planning which includes lessons about shape manipulation and proper design fit for human habitation. This course also includes design exercises involving innovative approaches on vernacular architecture including energy conservation and space management.
AR 212/S	Architectural Interiors	2.0	Basic design of interior spaces geared towards initial understanding of theories and principles in architectural interiors in relation to anthropometrics, proxemics and ergonomics.
AR 213/S	Building Utilities 1 - Plumbing and Sanitary	3.0	Principles and practices in plumbing and sanitary systems- its design, installation, operation and maintenance in buildings in relation to the immediate surroundings or environment.

AR 215	History of Architecture 2	2.0	Architectural manifestation of civilization and thoughts during the era of western dominance towards post modernism.
AR 216/S	Architectural Visual Communications 5 - Visual Tech 3	2.0	Covers exercises on advanced techniques of presentation using mixed media. Includes the study of multi-media composition/digital presentation, photography and computer generation.
AR 217	Building Technology 1- Building Materials	3.0	This course is designed to explain and present various building materials' properties, composition and application. This also includes the mode of specifying building materials in the construction drawings. These will provide teachers the needed knowledge and understanding to facilitate quality teaching.
AR 218	Tropical Design	2.0	This course deals with the study of concepts and techniques for the design and planning of building appropriate to the prevailing conditions in the hot-humid tropics climate
AR 219	Statics of Rigid Bodies	3.0	This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to structures and systems.

Second Semester			
AR 221/S	Architectural Design 5 - Space Planning 2	4.0	Design exercises stressing the analysis of space requirements based on organizational structure, functional set up and human behavior to focus linkages and interaction to spaces.
AR 222/S	Building Utilities 2 - Elect.,Electronics and Mech Systems	3.0	Mechanical and Electrical Systems in buildings - materials, equipment, design, installation and maintenance.
AR 223	Strength of Materials	3.0	This course covers topics which include axial stress and strain, stresses for torsion and bending, combined stresses, beam deflections, indeterminate beams and elastic instability.

AR 225/S	Surveying	3.0	Theory and practice of surveying techniques and instruments, field work operations, example note forms, and conventional surveying Instruments.
AR 226/S	Building Technology 2 - Construction Drawings in Wood, Steel and Concrete (1-storey)	3.0	Construction techniques, methods and the production of detailed working drawings using wood, masonry and reinforced concrete for one-storey structures.
AR 227	History of Architecture 3	3.0	Architectural reflections of traditional Asian thoughts and civilizations: their changes and challenges in contemporary life.

THIRD YEAR			
First Semester			
AR 311/S	Architectural Design 6 - Site Development Planning and Landscaping	4.0	Design exercises stressing environmental analysis, aesthetic, topographic, geologic, and seismologic conditions, utilities, circulations, legal considerations and sensitivities of man.
AR 312	Theory of Structures	3.0	The course is about the determination of values of shear, moments and deflections of statically determinate and indeterminate beams.
AR 313/S	Computer-Aided Design & Drafting for Architecture 1	2.0	A basic introduction on computer and software programs useful in architectural practice. It covers familiarization of drawing commands and problem solving. It is also extended to the introduction of techniques and skills in drawing 2D (two-dimensional object) in a manner of performing it more efficiently and accurately than with pen and paper. The course subject uses AutoCAD software to facilitate the learning process of students.
AR 314/S	Building Technology 3 - Construction Drawings in Wood, Steel and Concrete (2 storey Res. Structure)	3.0	Construction methods and techniques and the production of working drawings of a medium- rise building of reinforced concrete, masonry, glass and steel. (2-Storey Resd'l. Structure)

AR 315/S	Building Utilities 3 - Acoustics and Lighting Systems	3.0	The psycho-physics of acoustics and lighting – its measurement, analysis and application to architectural discipline.
AR 316	History of Architecture 4	2.0	Reflections on architecture in the Philippines: their changes and challenge in contemporary life and ideology of conserving its architectural legacies

Second Semester			
AR 321	Professional Practice 1 (Laws Affecting the Practice of Architecture)	3.0	Legal obligation and responsibilities of the Architect. The course is designed to provide the students with the basic knowledge of all laws related to the practice of Architecture.
AR 322/S	Computer-Aided Design & Drafting for Architecture 2/BIM	2.0	This course is designed to give an advanced computer-aided architectural rendering, modeling and animation using current software programs. This will also focus on the workflow as students expand their knowledge, skills and techniques in various programs and integrate them into their design process.
AR 323/S	Architectural Design 7 - Community Architecture and Urban Design	5.0	This course is designed to give design exercises which emphasize the socio-cultural activities of man, architectural conservation, proxemics, and, materials for architecture and designing with nature.
AR 324	Steel and Timber Design	3.0	The course is about the structural design and investigation of simple elements of structural steel and timber , Stated activities are performed in the context of strength, economy, compliance to codes and ease to construction.
AR 325/S	Building Technology 4 - Specs Writing and Quantity Surveying	3.0	Specification writing using uniform or master format, estimating methods and quantity surveying.
AR 326	Planning 1 - Site Planning & Landscape Architecture	3.0	The artistic and functional arrangement of buildings, open spaces, service areas, circulation and other external areas; techniques in the enhancement and design of exterior environment

AR 416	Research Methods for Architecture	3.0	Quantitative, qualitative and operational methods in architectural design research.

FOURTH YEAR			
First Semester			
AR 411/S	Architectural Design 8 - Design of Complex Structures	5.0	Design exercises involving high-rise and complex structures, structural system, modular coordination, functional relationship and activity circuits including basic design techniques and tools.
AR 412	Specialization 1	3.0	Design exercise on complex design problems in real urban settings.
AR 413/S	Building Technology 5 - Alternative Building Construction Systems	3.0	This course is designed to present, explain and construction methods and techniques or different types of buildings using any appropriate alternative building construction system.
AR 414	Professional Practice 2 (Administering the Regular Services of the Architect)	3.0	Architecture as a Profession, Ethical Norms and Office Procedures; The course is designed to provide the students with basic understanding of the practice of architecture pertaining to the basic services the architect render within the context of professionalism, ethical conduct and quality service delivery.
AR 415	Planning 2 - Fundamentals of Urban Design & Community Architecture	3.0	Spatial order, socio-cultural expression in the design of the exterior environment in neighborhoods, communities, towns and cities.
AR 424	Business Management & Application for Architecture 1	3.0	The course is designed to provide students with a view of the architect as an entrepreneur.

Second Semester			
AR 421/S	Architectural Design 9 - Thesis Research V	5.0	Thesis Research Writing: Design exercises stressing the importance of collaboration in solving architectural design problems, preliminary research and studies for the terminal project.

AR 422	Professional Practice 3 (Global Practice in the 21st Century)	3.0	The Architect, the Firm, the Project in the global setting. This course is designed to provide the students with an expanded view of the role of the architect in the built environment and the emerging transformation of the practice of architecture in a global setting.
AR 423	Architectural Structures	3.0	Design and investigation of simple reinforced concrete structures
AR 425	Planning 3 - Introduction to Urban & Regional Planning	3.0	Concepts and emerging trens, methods and techniques in urban and regional planning; design of human settlements, and overview of land use in the planning of regions.
AR 426	Specialization 2	3.0	This course is built the role that architects paly in building construction. It also seeks to create a deeper appreciation of these role so that may consider them as a specialized field of practice. The course opens up by defining construction industry and its various players. It will then discuss the function of CM together with the project values, project delivery, construction operations, project scheduling and monitoring.
AR 512	Housing	2.0	Socio-Cultural and Institutional Challenges for Effective Delivery of Housing In the Philippines
AR 513	Business Management & Application for Architecture 2	3.0	This course is designed to teach students the fundamentals of architecture as a business and practice, as well as managing a design-oriented career.

FIFTH YEAR			
First Semester			
AR 514/S	Architectural Design 10 - Thesis Research Application	5.0	Thesis Research Application. Terminal project involving comprehensive problem in building, interior and landscape architecture integrating the process and issues of previous studies.

AR 515	Specialization 3	3.0	This course is designed to present and explain what is Facility and Building Administration. Role, obligations and responsibilities of an Architect as a facility and building administrator to create an optimal, safe and cost-effective environment for the occupants to function.

Second Semester			
ARCH 501	History and Theory of Architecture; Principles of Planning: Architectural of Practice	4.0	This is a comprehensive course which has an objective of preparing the students in the Licensure Examination for Architects. It covers the subject area called Cluster 1.
ARCH 502	Utilities Systems/Structural Conceptualization/Building Materials and Construction	5.0	This is a comprehensive course which has an objective of preparing the students in the Licensure Examination for Architects. It covers the subject area called Cluster 2.
ARCH 503	Architectural Design and Site Planning	4.0	This is a comprehensive course which has an objective of preparing the students in the Licensure Examination for Architects. It covers the subject area called Cluster 3.