

Department of Architecture and Urban Planning

Design Studio Framework

		Year 1		Year 2			Year 3		Year 4		Year 5		
	ARCT110:	ARCT111: Graphic Comm. II	ARCT 120 : Architecture & Allied Arts	ARCT210: Perspective Shade & Shadow	ARCT211: Arch Studio I	ARCT212: Arch Studio II	ARCT 310: Arch. Studio 3	ARCT311: Arch. Studio 4	ARCT410: Arch. Studio 5	ARCT 411: Arch. Studio 6	ARCT510 : Comp. Des Studio	ARCT 511:Senior Project. Prep.	ARCT512: Senior Project
Course Description	Introduction to graphics, skill development in manual architectural drawing and related principles of architectural graphics; spatial relationships of points, lines, planes, and solids and voids; architectural drafting conventions; orthographic projections; principles of shades, shadows and perspective techniques. A series of exercises is introduced to advance basic graphic skills and emphasize two and three dimensional thinking including drawing of floor plans, cross sections, graphic diagrams; free hand sketching; model making techniques; Time management Prerequisite: Major in Architecture	Introduction to procedures in computer aided design and graphics used in producing 2D plans and sections, and three dimensional electronic models associated with architectural design and building construction; series of exercises develops skills in CAD drafting in 2D and 3D, and image processing; presentation packages are utilized for the	It involves theory & exercise applications of basic design and visual principles including architectural form, painting, graphics, sculpture, music, drama, visual culture. Topics include the ontology of architecture; Composition: design & elements of composition. Form: Gestalt perception, visual properties of form, regular and irregular. Space: definition, elements defining space, organization of form & space. Photography: technical and architectural aspects. Proportion and Scale in architecture and art forms. Fundamentals of architecture: convenience, durability, aesthetics	Introduction to sciagraphy and definition of shade and shadow in architecture. Shadow of planes, Shadow of volumes "Application of shade and shadow on the Architectural Drawings". Introduction to perspectography. Drawing perspective with two vanishing points; Drawing perspective using measuring points; Drawing perspective using measuring points; Presentation techniques of perspective; Application for a fully presented perspective; Interior perspective and Sectional perspective; exercises involve manual and computer applications Prerequisite: ARCT 210	Introduction to project design; simple but complete architectural design projects that place emphasis on programmatic aspects: space, order, context, and form; projects are hypothetical in nature in real sites; concept development; space definition; spatial requirements; adjacency requirements; contextual aspects.	Designing simple but complete architectural design projects; involves analytical thinking in design; response to site constraints; site design; architectural programming; materials; technology; explorations of functional, aesthetic, and structural aspects of buildings; developing a complete a set of graphics for architectural design projects Prerequisite: ARCT 211	Conducting design projects that involve complex functions and activities; introduction to systematic design procedures; complex architectural design projects that place emphasis on conceptual thinking and the analysis of contextual constraints, programmatic requirements, and problem solving processes in architectural design; projects attempt to simulate real life conditions with real visit-able sites; activities and objectives, problem definition Prerequisite: ARCT 212	Continuation of Architectural Design Studio (3) with emphasis on addressing the relationship between concept and context, idea generation and alternative solutions; evaluation; selection of solution and communication of project design; considerations of behavioral and cultural aspects, user requirements, building function and activities, construction materials and systems, environmental constraints and climatic influences are also addressed Prerequisite: ARCT 310	Introduction to community design theories and techniques, participatory design; collaborative design processes; community involvement in decision making; understanding community needs and resources; housing types; new understandings in neighborhood planning and design theories; gated communities; housing design; housing types; community support; design projects involve the use of community information in establishing collaborative design processes; and developing solutions based on community needs, preferences, and other contextual Prerequisite: ARCT 311	built environments from the urban scale to the minor detail. Sustainability is the major driver of the project addressing different parameters including lighting, sound, energy conservation strategies, construction systems, structural aspects, and indoor environmental quality	lenging Arch. &/or Urban Design project that involves real site & possbly real cli- ents; project emphasis program develop- ment, definition of client needs, compre- hensive anlaysis of urban context, intro- r ducing infill projects that serve a commu-	Understanding and training on design management and the practice of pre-design studies. Emphasis is placed upon program development, response to contextual constraints, and deep involvement in articulating a complete program and pre-design document, reaching a high degree of practicality & implementability Prerequisite: ARCT 411	Amalgamating different types of knowledge acquired in the previous into a comprehensive design project. Continuation of senior project programming and transforming the program & pre-design knowledge into a complete project that illustrates a deep understanding of design as an intellectual endeavor including a consideration of sococultural, formal, technical, and contextual aspects. Prerequisite: ARCT 511
Studio Theme & SPC's	Manual Graphic Communication, SPC: A.3	Digital Graphic Communication SPC: A3	Basic Design Studio with focus introduction to Architecture and design SPCs: A.1, A.3, A.6, A.8	Basic Design Studio II with focus on 3D SPCs; A.2, A.3,A.6, A.8	Programming and Design SPCs; A.2, B.1, B.2, B.4, B.5,	Climate/Appropriate Technology/Site Design SPC's: A.3, A.5, A.6, A.7, B.3, B.5,	Context and site Design SPC's: A.1, A.8, A.10, B.2, B.4, C.1, C.6		Community and Leadership (Leadership Studio) SPC's: A.10, B.2, B.5, C.1, C.3, C.5,	Pre-Comprehensive Studio- Sustainability SPC's:A.3, A.4, B.1, B.3, B.5, B6, B.8, C.9	Comprehensive Studio –Detailed Schematic design with system integration SPC's: A.3, A.4, A.5, A.8, A.9, B2, B3,	Programming and Pre- Design Studies SPC's: A.1, A.5, A.7, A.11, B.1, B.7, C.2, C.9	Holistic Architecture SPC's: A.2, A.3, A.10, B.4, B.9, B.10, C.9
Pedagogical objectives	Development of skills in manual drawing and methods and techniques of presentation; Knowledge of architectural drawing conventions; introduction to two and three- dimensional presentation and thinking, including model making and	Ability in the use of CAD software in drawing, modelling, rendering and presentation; Skills in production of 2 and 3-dimensional drawings, including sections and exploded 3D diagraming, skills in material assignment and	Basic studio aimed at introducing and developing ability in analytical thinking and design. Students introduced to principles of art and composition, materials, elements and vocabulary of architectural form, basics of ordering principle and organization, analytical study of buildings, and program and design process in	knowledge of perspective and shade and shadow, & skill in application in architectural communication, including exploring 3D ordering principles and communication; Skills in exploring principles in 3D with exercises and models; Ability to undertake analytical exploratory studies using models, paraline drawings & perspective. Ability to use 3D representation & models to examine how different building systems and envelopes are configure in buildings; ability to undertake design of simple buildings with focus on formal composition and integration of systems	Knowledge of concept of integrated and comprehensive design, ability to undertake detailed precedent study and analysis from standards and existing buildings and extract lessons for application in design, Ability to program and design simple buildings with focus on function, ordering of space, circulation, experience of space, and site design, using a process approach	Ability to handle design of a higher degree of complexity with focus on functional and aesthetic requirement, consideration for environmental context and energy efficiency, systems integration, building form, massing and articulation of fenestration	Ability to address some level of complexity in design, with focus on a systematic process that emphasizes program analysis, advanced conceptual thinking, consideration of context and cultural diversity, and site design. Development of ability to collaborate with others and for leadership in the community	simultaneously, ability to generate multiple alternatives based on precedents and pre-design analysis, consider social and cultural aspects in design respond to emiscomposital	Ability to work collaboratively, and to display leadership and social responsive by identifying and initiating action to address community development issues in the public interest, in conjunction with affected communities as clients, Ability to undertake community interventions in ways that address cultural diversity, as well addresses issues of accessibility and life safety for all users	Ability to design a fairly complex and comprehensive building with focus on sustainability and community responsibility, while paying attention to issues of pre-design, technical documentation, life safety and accessibility, building envelop, Achievement quality of visual communication that meets highest professional standards	documentation, sustainability, investigative skills, site design, ordering system, life safety, historical traditions, Environmental systems and structural systems	Understanding of concept building typology, ability to select & study a building type focusing on functional characteristics & design issues from standard books & precedents, ability to undertake project feasibility studies, including financial analysis, site area and location requirements, ability to formulate space program for a facility and undertake analysis of components and relationships, undertake predesign analysis with focus on program, site, environmental context & applicable systems, Ability to propose rational conceptual approach to design of the facility based on issues &responses from studies	Ability to display mastery of design skills, ability to be comprehensive and integrate all systems in design, ability to work independently with minimum instructor support
Types of Projects	Short exercises exploring stated pedagogical objectives Examples of projects include: Free hand drawings, point, line, planes and solids as morphological elements of form, drawing of plans, sections, elevations, site plans, principles of shade and shadow and perspective, compositional exercises, Architectural presentation	Short exercises used to explore and develop skills in program use, drawing and modelling material assignment and rendering, progressively organized to facilitate incremental development of ability from drawing and modelling simple buildings to more complex buildings		Short exercises focused on analytical exploration and design using tools of perspective, shade & Shadows, modelling and application of ordering principles in design, excercises focused exploring additive versus subtractive form, concept of "Parti" in organization, exploration of sequence, hierarchy, symmetry versus Assymetry, unique versus repetititive, transformation, use of analogy, scale & proportion in 3D composition. Examples of projects include Community Health Center, Nursery School, Neighborhood Community Center	Projects of single to multi-zone function buildings: Community library, Restaurants, fire station, Kindergarten , medium size exhibition building, art gallery, police station	Projects with multi-zone function buildings of 1 to 3 story of residential, educational or commercial classification; Qatari Passive house, Primary or secondary School, Restaurant, Medium size office , Multi-house Residential development, Kindergarten	Fairly complex Projects of a residential, commercial, recreation or cultural type Multi-block apartment neighborhood, small residential neighborhood, sport facilities, transportation hub, community center, theatre, water sports	Moderately complex Projects of a residential, commercial recreation or cultural type Cultural Center, Convention center, Research and educational institutions and colleges, Office tower, Hotel, exposition, airport	Medium scale complex projects addressing all design issues and embodying systems integration Examples of projects include Urban intervention projects, high density residential planning, Area urban redesign and upgrading project, Sensitive infill developments, affordable housing schemes for the less priveledged	Medium scale complex projects addressing all design issues and embodying systems integration Examples of projects include hotels, multi-story office building, commercial	Medium to large scale comprehensive projects addressing all design issues and embodying systems integration	Medium to large scale complex project/ Function and System complexity	Medium to large scale complex project/ Function and System complexity
Number & Scale of project	About 6 to 12 short exercises of a few days to one week duration with focus on objectives, complemented by a terminal project to demonstrate development of ability Projects of a small scale executable within allotted time frame	About 6 to 12 short exercises of a few days to one week plus duration with focus on pedagogical objectives, complemented by a terminal project to demonstrate development of ability. Projects generally of a small scale executable within	About 6 exercises of limited duration with focus on pedagogical objectives, complemented by a terminal project to demonstrate development of ability Projects generally of a small scale executable within allotted time frame; limited to one to two story buildings with simple large space functions on limited site	About 6 exercises of limited duration with focus on pedagogical objectives, complemented by a terminal project to demonstrate development of ability Projects generally of a small scale executable within allotted time frame; limited to one to two story buildings with simple large space functions;	2 projects of 6 and 8 week duration each 1 to 2 story building on a site of	2 projects of 6 and 8 weeks duration each 1 to 3 story building on independent	Two projects with duration of 5 and 9 weeks Multi-Story building on a maximum Site area of 750sqm, Max 60% site Coverage	and 9 weeks Multi-Story building on a maxi-	Medium scale complex projects addressing design issues & embodying systems integration. Projects include Urban intervention , high density residential planning, area urban redesign & upgrading, Sensitive infill developments, affordable housing. Two projects with first project defined by students with focus on community intervention & leadership, duration of 3 to 5 weeks; and second project of about 10 weeks focused on intensive community areal intervention at a scale defined with consideration for time available for studio	Single project executed in stages throughout semester Multi-Story building on a maximum Site area of 1Ha, Max 60% site Coverage	Single project executed in stages throughout semester Multi-Story building on a maximum Site area of 1Ha, Max 60% site	Single project executed in stages throughout semester Multi-Story building on a maximum Site area of 1 -1.25Ha, Max 60% site Coverage	Single project executed in stages throughout semester Multi-Story building on a maximum Site area of 1 -1.25Ha, Max 60% site
Type of Site		Not Applicable	At discretion of instructor, preferably on urban sites	At discretion of instructor, preferably on urban sites with unique characteristics, Maxi- mum site area of 900sqm with 60% cover-		Urban Context with Unique Features	Site with Slope/ Urban or sub urban context	Site with Slope	Existing Built Con-	Central City Context	Central City Context	Determined by facility need	Migrated site from Programming
Submission Requirement	Specified according to exercises	Specified according to exercises	Specified according to exercises	Specified according to exercises	Preliminary analysis, design issues, Concept and narrative on design intent, Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models, analysis of Accessibility and	Preliminary analysis, design issues, Concept and narrative on design intent, Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models, analysis of	Concept and narrative on design intent , Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall	Preliminary analysis, design issues, Concept and narrative on design intent, Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models, analysis of Accessibility and life safety	Preliminary analysis, design issues, Concept and narrative on design intent, Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models, analysis of Accessibility and life safety approach.	Preliminary analysis, design issues, Concept and narrative on design intent, Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models, analysis of	Preliminary analysis, design issues, Concept and narrative on design intent , Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models,	Complete and comprehensive programming report including process of identification of project with focus on community needs, Feasibility analysis and financial considerations, site selection and analysis, quality of program. preliminary analysis Consideration of social aspects,	Preliminary analysis, design issues, Concept and narrative on design intent, Site plan and design, all floor plans, diagram of structural system, Sections, large scale wall detail showing construction and Envelope, Elevations, perspectives of project, Design development models, final models, analysis of
Criteria for Evaluation	Specified according to exercises based on pedagogical objec-	Specified according to exercises based on pedagogical objectives	Specified according to exercises based on pedagogical objectives	Specified according to exercises based on pedagogical objectives	Ability to identify relevant issues in a design exercise and formulate concepts that address the issues; ability to identify lessons from precedents studies and apply them in design, ability to design simple facilities in an integrated and comprehensive way, ability to apply ordering principles with respect to form, space, circulation and experience of buildings, ability to clearly design sites and buildings with	Ability to handle complex functional requirement, Ability to design buildings that are well integrated to site with consideration for accessibility and life safety. Ability to consider energy in design focus on passive strategies manifested in layout on site and building envelop systems, ability to generally integrate systems in design, and ability to communicate design graphically with focus on layout, organization of	Ability to handle complex functional requirement, Ability to design buildings that are well integrated to site with consideration for accessibility and life safety Ability to consider energy in design focus on passive strategies manifested in layout on site and building envelop systems, ability to generally integrate systems in design, and ability to communicate design graphically	design buildings that are well in- tegrated to site with considera- tion for accessibility and life safety Ability to consider energy in design focus on passive strategies manifested in layout on site and building envelop systems, ability to generally integrate systems in design, and ability to communi- cate design graphically with	Ability to interact and initiate project action with community Ability to handle complex functional requirement, Ability to design buildings that are well integrated to site with consideration for accessibility and life safety. Ability to consider energy in design focus on passive strategies manifested in layout on site and building envelop systems, ability to generally integrate systems in design, and ability to communicate design	Quality and comprehensive of design with focus on sustainability, address of pre-design issues, life safety and accessibility, building envelop and general technical documentation, Quality of	Comprehensiveness of project and ability to integrate all systems Ability to address issues of design thinking, accessibility, life safety, technical documentation, sustainability, investigative skills, site design, ordering system, historical tradition, environmental and structural systems Ability to produce technical documentation that's shows principal systems used in design as well as responses to environmental context	Understanding of building type and its design issues, Rationality and appropriateness of space program, Rationality and appropriateness of site selection, Quality of pre-design analysis, Presentation of programming	professionalism in the handling of all design issues – form, function,
Grading	Instructor designed rubric to assess achievement of pedagogical objectives and SPC using terminal project	Instructor designed rubric to assess achievement of pedagogical objectives and SPC using terminal project	Instructor designed rubric to assess achievement of pedagogical objectives and SPC using terminal project	Custom NAAB Process Rubrics for stages and Final Presentation Rubric for Jury	Custom NAAB Process Rubrics for stages and Final Presentation Rubric	Custom NAAB Process Rubrics for stages and Final Presentation Rubric for Jury	Custom NAAB Process Rubrics for stages and Final Presentation Rubric		Custom NAAB Process Rubrics for stages and Final Presentation Rubric for Jury	Custom NAAB Process Rubrics for stages and Final Presenta- tion Rubric for Jury	Custom NAAB Process Rubrics 1-3 for stages and Final Presentation Rubric for Jury	gram Stages and Final Program Presentation	Custom NAAB Process Rubrics 1-3 for stages and Final Presentation Rubric for Jury
Grade Distribution	100% product by Instructor using custom designed rubrics for each project	100% product by Instructor using custom designed rubrics for each project	100% product by Instructor using custom designed rubrics for each project	Process 60%; Product 40%	Process 50%, Jury 50%	Process 50%, final Jury 50%	Process 50%, final Jury 50%	Process 50%, final Jury 50%	Process 40%, final Jury 60%	Process 40%, final Jury 60%	Process 30%, final Jury 70%	Process 30%, final Jury 70%	Process 30%, Final Jury 70%

DAUP Studio Guidance Notes

- No studio should be given the same type of project more than once unless there is a clear difference in complexity and scope
- Projects will be developed using a process approach with focus on understanding and developing design from different aspects of problem including site, program, Function, response to context, Environmental consideration etc.
- Projects will be graded incrementally in tune with stages of execution with fixed grade given for each stage and a final grade jury grade which should be 50% or less of total project grade depending on studio
- Grading will be tied to how projects address design issues in an integrated and comprehensive way and achieve SPC outcomes speci-
- It is the responsibility of students in every studio to understand the required outcomes and SPC's and ensure that they clearly communicate the achievement of the outcomes
- lt is the responsibility of instructors to inform students of pertinent outcomes and standard of performance required with respect to each
 - SPC and to provide formative and critical guidance that leads to the achievement of the specified SPC's