ARCH-ARCHITECTURE

ARCH 1115. Introduction to Architectural Graphics
4 Credits (2+4P)
Introduction to manual and digital drawing as well as modeling techniques for architectural and interior design. Students will learn how to represent composition, form and space by orthographic drawing, paraline and perspective views, and freehand sketching. Three-dimensional model building techniques will also be introduced. May be repeated up to 4 credits.

Learning Outcomes

1. Demonstrate an understanding of orthographic projection, multi-view drawings, plan, section, and elevation.
2. Demonstrate a knowledge of graphic standards such as line types, line weights, hatch/poche, symbols, dimensioning, annotation, key noting, cross-referencing, according to industry conventions.
3. Draw from observation and perform conceptual sketching and diagramming.

ARCH 1120. Introduction to Architecture
3 Credits (2+2P)
This course provides students the tools and vocabulary to analyze, interpret, and discuss the built environment from social, historical, perceptual, and technical determinants. Students are introduced to elements, principles, and theories of architecture through their social, historical, and technical determinants. The course seeks to lay a foundation in architectural studies, including introducing students to fundamental vocabulary and concepts.

Learning Outcomes

1. Identify and describe significant architects and iconic buildings.
2. Discuss social, cultural, and aesthetic contributions of specific architects and projects.
3. Explain architectural concepts via written and graphic communication.
4. Recall basic processes and vocabulary of architectural professional practice.
5. Understand our built environment and the language of design and architecture.
6. Understand how buildings are constructed and explain the process of development.
7. Describe and discuss design elements, principles, and theories.
8. Understand the relationships among owner, surveyors, designers, architects, engineers, and contractors.
9. Research design texts and analyze buildings, landscapes, interiors, sustainability, and products to increase knowledge of important elements of architecture and design. 1
10. Identify the various styles, periods, and movements and their social, historical, and technical impacts on architecture.

ARCH 1121. Computers in Architecture
3 Credits (2+2P)
Explore various software and photography techniques widely used in the architectural field. In addition to using industry standard CAD program as primary 2-d drafting tool, focus is to produce digital architectural models and renderings, presentation boards, and animations. Digital images will be produced and enhanced through basic techniques in photography and integration of various software. Both individual and group work will be required.

Learning Outcomes

1. Demonstrate the use of the computer and plotters/printers
2. Define and understand different terminologies
3. Demonstrate the understanding of different files using windows operating system
4. Understanding the appropriate use of the software in order to produce necessary drafting outcomes
5. Use proper plotting and printing procedures in order to increase efficiency and minimize paper waste
6. Demonstrating the use of different line types as the relate to drafting

ARCH 1122. Architectural Design Studio I
5 Credits (1+8P)
Enhancement of general graphic communication skills and introduction to fundamental design including exploration, development and defense of design concepts; structural order; 2D and 3D processes in manual and digital architectural graphic expression; model building; general communication and presentation techniques; and development of course portfolio. Course is Studio/critique-based with considerable amount of work/hours required. This course is designed to be taken during student's last year in the Pre-Architecture program at DACC. Consent of Instructor required. Restricted to Community Colleges only.
Prerequisite(s): Grade of B- or better in both ARCH 1120 and ARCH 1110.

Learning Outcomes

1. Write and speak effectively and use representational media appropriate for both within the profession and with the general public.
2. Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards
3. Gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.
4. Effectively use basic formal, organizational and environmental principles and the capacity of each to inform two-and three-dimensional design.
5. Apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two-and three-dimensional design.
6. Examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.
7. Prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.
8. Respond to site characteristics, including its context and developmental patterning, the fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.
9. Design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards. 1
10. Demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well

as the selection and application of the appropriate structural system. 1

11. Understand the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

ARCH 1125. Design Fundamentals
3 Credits (2+2P)
Introduces fundamental principles and processes of two-, three-, and four-dimensional design. Design aesthetics, perception, technique, composition, evaluation of materials and methods, practicing design methodologies, exploring design principles and theories, and graphic authorship are explored through various types of assignments.
Prerequisite: ARCH 1120 and ARCH 1115.
Learning Outcomes
1. Demonstrate design solutions using the elements and principles of design and planning process to satisfy aesthetic and sustainable design criteria.
2. Furnish spaces by picture/sample of furniture, flooring, fabric, and finish samples.
3. Demonstrate the ability to use subtractive color theories and how color relates to space.
4. Demonstrate the ability to create basic lighting solutions.
5. Demonstrate the ability to perform space planning principles.

ARCH 1220. Architecture World History I
3 Credits (2+2P)
A survey of the development of world architecture from the ancient era to the advent of the enlightenment in Europe. Major emphasis is on the visual, intellectual, cultural and technological aspects of the ancient and indigenous cultures of the classical and pre-modern world. Community Colleges only. Restricted to Alamogordo, Dona Ana and Grants campuses.
Learning Outcomes
1. Identify major architectural monuments from prehistory to the Renaissance (1400's) in the Western world
2. Demonstrate an understanding of major monuments, styles of architecture and building traditions of non-Western cultures
3. Recognize the relationship of movements and styles in Western architecture to their counterparts in painting and sculpture from the various historical periods
4. Describe the basic principles of urban design
5. Express an appreciation of architectural achievements and the ways in which the elements of art {line, form, color, texture, light, etc.) combine to produce objects of beauty in the built environment
6. Describe basic engineering concerns and achievements in architecture

ARCH 2112. Architectural Visualization I
3 Credits (2+2P)
Introduction to the history, theory, and emerging practices of architectural drawing. Students will learn technical workflows for 3-D digital modeling, 2-D digital drawing, and fabrication. This course will cover strategies for prescribing drawing conventions and modes of representation, including measured drawings, diagrams, orthographic views, perspectives, image-making, and rendering. May be repeated up to 3 credits.
Learning Outcomes
1. Architectural drawing conventions, such as line weights, line styles, composition, scale, notations, and orientation.
2. Graphic and compositional strategies for drawing and perspective making.
3. Conventional and unconventional approaches to modeling and drawing and the appropriate context for both.
4. Productive use and workflow of 2-D and 3-D digital software to construct architectural drawings and images.
5. Situate questions of representation within the historical and contemporary discourse on architectural environments.

ARCH 2114. Construction Documents
3 Credits (2+2P)
Basic use of CAD to produce residential, commercial, and industrial architectural working drawings, including floor plans, sections, foundation plans and details, exterior and interior elevations, framing plans, and site plans. Use and application of building and zoning codes, typical construction methods and materials, and accessibility requirements. Basic 3-D modeling, AIA layering standards, sheet layout, and construction document coordination. Restricted to: Community Colleges only.
Prerequisite(s)/Corequisite(s): DRFT 109.
Learning Outcomes
1. Create full 3D architectural project models, both via tutorials, and independently
2. Set models up as working drawings.
3. Have a working knowledge of the tools that the majority of users will use to work with Revit Architecture.
4. Project File management skills

ARCH 2115. Architecture Design Studio II
5 Credits (1+8P)
Advanced graphic communication, design, and 3D physical model representation. Focus on site analysis, programming and fundamental design issues of context, environment, program development and space planning, 2D and 3D design and presentation techniques. Course is 'Studio/critique-based' with considerable amount of outside work/hours required. This course is designed to be taken during student's last year in the Pre-Architecture program at DACC. Restricted to Alamogordo, Dona Ana and Grants campuses.
Prerequisite(s): Grade of C- or better in ARCH 1122.
Learning Outcomes
1. Write and speak effectively and use representational media appropriate for both within the profession and with the general public.
2. Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards
3. Gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.
4. Effectively use basic formal, organizational and environmental principles and the capacity of each to inform two-and three-dimensional design.
5. Apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two-and three-dimensional design.
6. Examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.
7. Prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory

of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

8. Respond to site characteristics, including its context and developmental patterning, the fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.
9. Design sites, facilities, and systems that are responsive to relevant codesand regulations, and include the principles of life-safety and accessibility standards. 1
10. Demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system. 1
11. Understand the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

ARCH 2117. Architectural Visualization II
3 Credits (2+2P)
Students will advance on technical skills and workflows obtained in Architectural Visualization I to observe, document, transform and create multi-scalar ideas into irresistible visual expressions. This course will cover architectural drawing conventions of plan, section, elevation, axonometric projection, perspective construction, diagramming, mapping and imaging to effectively communicate design ideas through visual means. May be repeated up to 3 credits.
Prerequisite: ARCH 2111.
Learning Outcomes

1. Identify architectural conventions in orthographic projections.
2. Emphasize Architectural properties through the strategic use of drawing conventions.
3. Graphic and compositional strategies for drawing and perspective making.
4. Develop a process that transitions 2-dimensional drawings into 3-dimensional visual graphic forms.
5. Conventional and unconventional approaches to modeling and drawing and the appropriate context for both.

ARCH 2124. Professional Development and Leadership
3 Credits (2+2P)
To deepen their understanding of the architecture profession, students are encouraged to actively engage in leadership, collaboration, and community service. These experiences, along with a required internship in either Option A (Architectural Practice) or Option O (Other Qualifying Experience), provide essential real-world exposure and skill development directly aligned with architectural practice. While internships under Option A must be paid, students gaining experience under Option O may fulfill requirements through approved volunteer positions. This course is designed to support students in earning AXP hours and gaining meaningful experience in the Practice Management area, as defined by the National Council of Architectural Registration Boards (NCARB), ensuring a strong foundation in the professional standards and expectations of the field. May be repeated up to 6 credits.
Learning Outcomes

1. Develop and refine leadership skills including decision-making, delegation, conflict resolution, and team-building.
2. Adhere to ethical standards and professional codes of conduct in all aspects of practice.
3. Master professional communication techniques, including public speaking and visual presentation skills.
4. Develop strong, professional relationships with clients by understanding and addressing their goals.
5. Gain expertise in project management, including scheduling, scope management, and contract administration.
6. Understand foundational business principles essential to managing an architectural practice, including procurement processes, marketing strategies, proposal development, and operational efficiency.
7. Comply with legal and regulatory requirements governing architectural practice, including contract law and delivery methods.
8. Foster collaborative environments that support productivity, innovation, and positive interpersonal dynamics within design teams.
9. Demonstrate integrity, accountability, and transparency in decision-making, client interactions, and project execution. 1
10. Effectively engage with clients, stakeholders, and the public, managing expectations and building trust through clear, responsive dialogue. 1
11. Participate in community-based projects and design initiatives that serve the public interest and promote civic engagement. 1
12. Develop systems for responding to RFIs and design changes, ensuring that projects remain on track and within defined parameters. 1
13. Engage in lifelong learning and professional development to stay current with industry practices and expand leadership and technical competencies.

ARCH 2220. Architectural World History II
3 Credits (2+2P)
A survey of the development of world architecture from the enlightenment in Europe to the present. Community Colleges only. Restricted to Alamogordo, Dona Ana and Grants campuses.
Prerequisite(s): ARCH 1220 or consent of instructor.
Learning Outcomes

1. Identify major architectural monuments from 1400 to the present in the Western world
2. Identify major architectural monuments from 1400 to the present in the Western world
3. Recognize the relationship of movements and styles in Western architecture to their counterparts in design, painting, and sculpture from the various historical periods
4. Describe the basic principles of urban design
5. Express an appreciation of architectural achievements and the ways in which the elements of art (line, form, color, texture, light, etc.) combine to produce objects of beauty in the built environment
6. Analyze basic engineering concerns and achievements in architecture

ARCH 2994. Portfolio Design in Architecture
3 Credits (3)
This course is intended for Pre-Architecture students in their last semester of the program. Students develop a comprehensive portfolio that compiles, organizes, and showcases their most accomplished coursework produced in Architecture courses at DACC, in preparation for application to a 4 yr. Architecture program. Skills and techniques in architectural photography, scanning, and design layout using graphic software. Restricted to Community Colleges only.

Corequisite(s): ARCT 2115.

Learning Outcomes

1. Edit and enhance previous drawings, digital files, and models.
2. Research and learn about portfolio and layout styles.
3. Development/Presentation of Final Portfolio for application/transfer purposes, as well as presenting it to the class and other reviewers.
4. Document drawings, models, digital work and other productions accurately and effectively.
5. Organize their coursework and select the images that best showcase learned skills
6. Develop organizational habits to record and document their work and back up digital copies
7. Develop analytical skills to produce an effective layout to then produce a portfolio
8. Organize, layout and design their own portfolio.

ARCH 2995. Cooperative Experience

1-6 Credits

Supervised cooperative work program. Student employed in approved occupation; supervised and evaluated by employer and instructor. Student meets weekly with instructor. Graded S/U.

Prerequisite: consent of instructor.

Learning Outcomes

1. Varies

ARCH 2996. Special Topics

1-6 Credits

Topics subtitled in the Schedule of Classes. May be repeated for a maximum of 12 credits.

Prerequisite: consent of instructor.

Learning Outcomes

1. Varies