

# School of Architecture

---

## Mission

The School of Architecture prepares graduates in Architecture, Construction Science, Community Development Planning, and Digital Media Arts to address design and planning challenges at the local, national, and international levels. Success is achieved by encouraging innovative research, advancing knowledge through interdisciplinary collaboration, utilizing state-of-the-art technology, and focusing on professional and leadership development.

The Architecture program prepares college graduates for entry into design and management positions in the profession, to attend graduate school, and to obtain professional registration.

The Construction Science program empowers students to assume a broad range of professional positions in the construction industry.

The Digital Media Arts program is actively shaping innovative designers by blending traditional artistic practices with advanced digital technologies, focusing on graphic design, interactive media, game design, and animation.

The Community Development Planning program is dedicated to cultivating future leaders in urban and regional planning to tackle complex challenges in communities through innovative academic instruction, research design experiences, and sustainable development. Graduates are equipped with comprehensive planning knowledge, skills, and ethical practices necessary to enhance both the natural and built environments.

## Vision

The School of Architecture graduates will be equipped to shape the future as visionary professionals, leaders, and scholars in an evolving world addressing the complexities of the built, natural, and virtual environment.

The location of the School of Architecture near the City of Houston offers an opportunity for students to enrich their learning experience through access to the greater architectural, construction, and design community of the region and the many employment opportunities in the field.

## Instructional Organization

Program	Degree Offered
Architecture	BS, MARCH
Community Development	MCD
Construction Science	BS
Digital Media Arts	BS

## Accreditation

The Master of Architecture degree is accredited by the National Architectural Accrediting Board (NAAB). The NAAB provides the following mandatory accreditation statement.

"In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards.

Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the non-accredited degree is not, by itself, recognized as an accredited degree."

Prairie View A&M University School of Architecture offers the following NAAB accredited degree program:

Master of Architecture (pre-professional degree with a minimum of 132 credit hours that includes eight design studios + 37 graduate credit hours)

Next accreditation visit: 2027

The Bachelor of Construction Science is accredited by the American Council for Construction Education (ACCE).

## Centers

Within the School of Architecture, the Texas Institute for the Preservation of History and Culture and the Community Urban and Rural Enhancement Service Center serve as the research and service arms in the Community. Both centers serve to educate and involve the students and faculty in the School and the University with projects and activities related to the historic fabric and urban settings of the community.

## The Texas Institute for the Preservation of History and Culture (TIPHC)

Serving as a research and service center for the University and the School of Architecture. The Institute integrates multiple disciplines and a wide range of knowledge, e.g., oral history, historic preservation; and comprehensive documentation reflecting the historical influence of large scale and on small scale communities in Texas. The institute also views indigenous culture, architecture and community development as potentially symbiotic; it moves beyond the tripartite disciplines to a search for ways to educate the students and the community and to actively regenerate human understanding.

## Community Urban and Rural Enhancement Service Center (CURES)

The center's focus is on the survey to work with inner city neighborhoods and documentation, rural communities across the State of Texas to identify their needs pertaining to the built environment as it pertains and to the legacies of culturally specific help them shape their communities. Through collaboration within the School of Architecture programs, the center is able to prepare to help deliver a comprehensive holistic approach to problem solving that assist neighborhoods, local governing bodies, community-based organizations, and citizens with their vision. CURES develops visions and plans for many types of places and open spaces using green building concepts. Faculty and students involved in the center apply their education and training in architecture, construction and development to promote innovation planning and re-adaptive use of exciting and historic structures. The center is also involved in many of the university's wide service learning activities that involve students of all disciplines with the enhancement of communities in our state and across our country.

## Admission Requirements

Admission is open to all qualified individuals in accordance with the policies of Prairie View A&M University. Application instructions and information for incoming students is completed through the State of Texas Common Application for Freshman Admission available at [www.pvamu.edu](http://www.pvamu.edu) (<http://www.pvamu.edu>).

For qualified entering freshmen and transfer students, the School of Architecture offers the Architectural Concepts Institute (ACI), a special summer program described in the catalog section, "Summer and International Enrichment Programs."

## Transfer Students

Transfer students from accredited architecture programs or with non-architectural education backgrounds should contact the School of Architecture for information regarding appropriate placement within the curriculum.

## Transfer Courses

Students wishing to transfer architecture, construction science, and/or digital media arts courses taken at another institution must provide sufficient evidence of equivalency. No course with a grade less than a "C" will be accepted.

## Admission to the Programs

During the spring semester of the third year of study, students wishing to pursue a professional degree in architecture will make formal application to continue in the professional program. Admission will be determined by grade point average (overall and in architecture), a review of the student portfolio of work, and faculty recommendations. Students admitted to the professional program will complete the Program A: Professional Track, during their senior year and complete a formal application with the Office of Graduate Studies prior to completing their final semester of undergraduate studies.

**Computer Requirement.** Students in the program are required to have their own computer for use in the classroom or studio no later than the start of their sophomore year. Computer equipment and software must meet prescribed hardware and software standards. Computer equipment and software requirements are posted on the school's website.

**Grades.** A grade of a "C" or better is required for all courses in all the degrees offered in the School of Architecture. Students may repeat architecture and construction science courses only one time for grade replacement purposes.

**Student Projects, Papers or Reports.** The School of Architecture reserves the right to retain, exhibit, and reproduce all work submitted by students. Work submitted for a grade is the property of the school and remains so until it is returned to the student.

**Counseling and Advising.** Program Directors, staff, and senior faculty members assist students in career counseling and guidance. Advisement for course registration is provided by the academic advisors and the responsible academic program director.

**Ineligible Registration.** The School of Architecture reserves the right to prevent any student who is not eligible for registration from entering a course for reasons such as unapproved overloads, unapproved repeated courses, lower division-upper division rule infractions, and lack of prerequisites. Any student found to be ineligible for a course, maybe dropped from that course at the time of discovery.

**Catalog Selection.** Students will use the catalog issued for the year in which they were first officially admitted to the School of Architecture or may elect to use a more recent catalog. However, if they later transfer to another institution or another college at PVAMU and wish to return to the School of Architecture at Prairie View A&M University they will follow the current catalog curricula in effect if they are readmitted.

**Course Load.** Approval from the Program Director and the Dean is required for a course load of more than 18 semester hours (12 hours for a summer term). Correspondence courses are included in the student's course load, as are courses taken concurrently at other institutions. **Students that are**

employed and working more than 20 hours a week should limit their semester hour enrollment and course selection must be determined with the assistance of the student academic advising staff prior to registration.

**Class Attendance.** Prairie View A&M University requires regular class attendance. **Students in the School of Architecture are expected to attend all scheduled class meeting times and activities.** Absences in excess of those stipulated in each individual course syllabus may result in a student's course grade being reduced. Students should refer to the university's policy, procedures, and dates on dropping a course. Students are encouraged to meet with their academic advisor for additional information.

**Application for Degree.** Candidates for graduation must file with the School of Architecture and the university in accordance with deadlines established by the university. Typically, cut-off dates to submit an application occur in the final semester prior to the start of the final semester before their anticipated date of graduation. Undergraduate students must have a grade of "C" or better in all Architecture and Construction Science courses and a 2.5 GPA to graduate.

**Practicum and Internship Programs.** The School of Architecture requires a graduate-level internship with an architecture firm for the Masters of Architecture degree. Students may also enroll in an internship at the undergraduate level as an elective course. Students in Construction Science are required to complete two (2) internships. In order to obtain academic credit for the internship, all internships must be approved by the respective academic program director. Architecture students are encouraged to participate in the professional practicum program which offers the opportunity to receive academic credit for such activities as: "study abroad," completing a semester at another accredited architecture program, or studying in the offices of several leading architectural firms.

**Minor.** Minors are offered in Architecture, Sustainable Design, Construction Science, Digital Media Arts, and Art. The students should consult with an academic advisor and have a Minor Approval Form completed, approved, and signed by the Program Director and the Dean. A list of recommended courses is available from the advisor. All minors require 18 hours as listed in this catalog. A listing of courses for both minors is provided in this catalog. At least 9 of the 18 hours must be taken in residence for the Art minor. For the Construction Science minor, only three hours may be taken off-campus with the approval of the program director. Grades of a "C" or better are required in each course for both minors.

## Academic Standards and Academic Progress

To earn credit for a course in architecture and to qualify for the next course in a sequence, a student must have earned a "C" or better. To repeat a course more than once in architecture, construction science, or digital media arts, students must request and have the permission of the dean.

### Architecture Minor

ARCH 1307	Visual Communications	3
ARCH 1303	Architectural Design I	3
ARCH 1301	Architectural History I	3
ARCH 1302	History of Architecture II	3
Advanced Architecture Electives <sup>1</sup>		6
<b>Total Hours</b>		<b>18</b>

<sup>1</sup> Architecture electives must be 3000 or 4000 level.

### Architecture for Construction Science majors

ARCH 1626	Architectural Design II	6
ARCH 2603	Architecture Design III	6
Advanced Architecture Electives <sup>1</sup>		6
<b>Total Hours</b>		<b>18</b>

<sup>1</sup> Architecture electives must be 3000 or 4000 level and must not have been applied to the requirements of the construction science degree.

### Art Minor

#### ART MINOR

ARTS 1311	Design I (2-Dimensional)	3
ARTS 1316	Drawing I	3
ARTS 1301	Art Appreciation	3
ARTS 2316	Painting	3
Choose two courses from the courses listed below:		6
ARTS 3314	Sculpture I	
ARTS 3317	Watercolor	

ARTS 3319	Printmaking	
ARTS 3351	Crafts Design	
ARTS 4310	Creative Photography I	
ARTS 4313	Printmaking II	
ARTS 4321	Book Arts	

**Total Hours** **18**

## Construction Science Minor

A minor in Construction Science can be obtained by completing 18 credit hours. Recommended courses are:

CONS 3301	Construction Estimating	3
CONS 3363	Surveying and Soils	3
CONS 4360	Construction Labor and Safety	3
CONS 4363	Construction Law and Ethics	3
CONS 4375	Scheduling and Mobilization	3

Select one of the following: 3

CONS 4341	Residential Construction	
CONS 4342	Commercial Construction	
CONS 4344	Highway/Heavy Construction	
CONS 4345	Facilities Management	

**Total Hours** **18**

## Digital Media Arts Minor

### ART MINOR

ARTS 1311	Design I (2-Dimensional)	3
DGMA 2317	Fundamentals of Digital Imaging	3
DGMA 2318	Fundamentals of Interactive Media	3
ARTS 2331	Graphic Design History	3

Choose two courses from the courses listed below: 6

ARTS 1312	Design II	
ARTS 1315	Creative Thinking	
ARTS 2336	Sign + Symbol	
ARTS 3319	Printmaking	
ARTS 3351	Crafts Design	
ARTS 4310	Creative Photography I	
DGMA 4323	Design Practice	

**Total Hours** **18**

## Sustainable Design Minor

### Theory & Practice

ARCH 3346	Sustainable Building <sup>1</sup>	3
ARCH 3347	Ecology and Man	3
ARCH 4366	Regenerative Design	3

### Technical

ARCH 4363	Net Zero Energy Design I	3
ARCH 4364	Net Zero Energy Design II	3
ARCH 4376	Energy Modeling (Energy Modeling )	3

**Total Hours** **18**

<sup>1</sup> ARCH 3346 serves as a prerequisite for entry into the minor. Students must earn a grade of C or better in all courses included in the minor.

## School of Architecture Community Development Graduate Certificate Program

The School of Architecture under its graduate program in Community Development offers certificates in the following study areas:

- Professional Planning
- Real Estate Development

The purpose of offering graduate certificates is to meet the additional educational needs of the community development professional. As job responsibilities change due to emerging new markets and demands, additional training or specialized training is often required. For example, an architect may become involved in the preservation of historic districts or the planning and development of a community; a developer is involved in the development of another country's infrastructure. Students in the Community Development Master's Program or any other master's program have the option to select courses from these study areas to fulfill their elective course requirements. The Community Development Graduate Certificate Program is a set of courses that provides in-depth knowledge in a subject matter. The set of courses are more practice-oriented than the required courses in a graduate academic program.

Certificates in Professional Planning and Real Estate Development are awarded after the completion of the program and must be signed by the program director and/or the Dean of the School of Architecture.

Students must consult with their academic advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under CPoS requirements.

The certificate course work in Professional Planning consists of 18 semester hours and certificate course work in Real Estate is 18 hours as follows:

### Certificate in Community Planning

Total		12
CODE 5305	Community Development Planning Studio	3
CODE 5331	Community Growth Management and Leadership	3
CODE 5308	Community Analysis, Demography and GIS	3
CODE 5335	Comprehensive Project Studio	3

### Certificate in Real Estate Development

CODE 5380	Principles of Real Estate I	3
CODE 5382	Law of Agency	3
CODE 5383	Law of Contract	3
CODE 5381	Principle of Real Estate II	3
CODE 5384	Promulgated Contract Forms	3
CODE 5385	Real Estate Finance	3
Total		18

### Certificate Procedure

#### Step 1: Application for the Certificate Program

Apply to Graduate Studies for Admission. After being admitted by Graduate Studies, the student will be able to request consideration for Certificate Programs and will review the requirements with the Director of the Community Development Program.

#### Step 2: Review of the Application

The student would meet with the Director to develop a study plan to layout the certificate course selections. The Director will review the study plan for compliance with the established requirements for certificates.

#### Step 3: Issue of the Certificate

Upon completion of the certificate requirements, the student must notify the Director of their status by applying for the certificate. The student is required to pay a certificate fee of \$50 to cover the cost to administer the certificate. The Director after their review of the student's study plan and progress will advise the dean of the college. The director/dean will then authorize the granting of the certificate.

### Honor Societies, Clubs, and Service Organizations

Student organizations play an important role in the socialization of students and in helping students develop skills in leadership and service. All students are encouraged to become active members in any of the following professional organizations sponsored by the School of Architecture.

- American Institute of Architecture Students (AIAS)
- National Organization of Minority Architecture Students (NOMAS)
- Women in Architecture Students (WIAS)
- The Tau Sigma Delta National Honor Society in Architecture and Allied Arts (TSD)
- Alpha Rho Chi
- Construction Specifications Institute (CSI)
- Association of General Contractors (AGCS)
- National Association of Homebuilders (NAHB)
- AIGA PVAMU, the student group for design
- Panthers G.A.M.E.

## Architecture Courses

### ***ARCH 1301 Architectural History I: 3 semester hours.***

Survey of the development of architecture from Renaissance to modern era. This course will also focus on culturally significant Western and Nonwestern architecture that advances critical thought and intellectual curiosity. Required drawing and reading material will enhance the evolution of historical, social and political concepts and foster the ability to write and express ideas graphically and professionally to engage effectively the regional, national and global community with an emphasis on personal as well as social responsibility.

### ***ARCH 1302 History of Architecture II: 3 semester hours.***

Survey of the development of architecture from Renaissance to modern era. This course will also focus on culturally significant Western and Nonwestern architecture that advances critical thought and intellectual curiosity. Required drawing and reading material will enhance the evolution of historical, social and political concepts and foster the ability to write and express ideas graphically and professionally to engage effectively the regional, national and global community with an emphasis on personal as well as social responsibility.

### ***ARCH 1303 Architectural Design I: 3 semester hours.***

Introduction to basic design issues including form, space, ordering systems, human use and the architect's responsibility to society. Students will investigate these issues critically in individual and collaborative projects and communicate findings through visual, oral and written presentations. Co-requisite: ARCH 1307.

### ***ARCH 1307 Visual Communications: 3 semester hours.***

Multimedia techniques in graphics emphasizing orthographic projections, perspective, shade and shadow, color theory and freehand and digital drawing.

Co-requisite: ARCH 1303.

### ***ARCH 1315 Computer Aided Design: 3 semester hours.***

Introduction to the range and potential of computer aided design and electronic media in problem-solving and conceptual design, and Building Information Modeling (BIM) programs.

### ***ARCH 1327 Multimedia Digital Application: 3 semester hours.***

The goal of this course is to obtain an introductory skill set for using computer base multimedia technologies, such as Adobe Acrobat, PhotoShop, Illustrator, and AutoCad, which will further help assist them in their studies and practices. The primary emphasis is to help improve their research, productivity, presentation communications through the effective use of graphic technology; stimulating their personal capacity creativity.

### ***ARCH 1626 Architectural Design II: 6 semester hours.***

Basic principles of architectural design and communication including organization, spatial sequence, relationships and problem solving using simple interior and exterior problems.

Prerequisites: ARCH 1303 or ARCH 1253.

### ***ARCH 2312 Architectural Technology: 3 semester hours.***

Introduction to the properties and uses of natural and manufactured building materials and the effect of the nature of materials upon design.

### ***ARCH 2603 Architecture Design III: 6 semester hours.***

Problem solving and presentation of basic principles, concepts and ideas as applied to simple architectural problems

Prerequisites: ARCH 1626 or ARCH 1266.

### ***ARCH 2604 Architecture Design IV: 6 semester hours.***

Basic architectural design projects with an emphasis on site development, function, form and the design process.

Prerequisites: ARCH 2603 or ARCH 2256.

### ***ARCH 3328 Materials and Methods: 3 semester hours.***

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

Prerequisites: ARCH 2312 or ARCH 2273.

**ARCH 3329 Structural Systems I: 3 semester hours.**

A study of the theory of various structural concepts. Emphasis is placed on statics and strength of materials.

Prerequisites: MATH 1316 or MATH 1123.

**ARCH 3345 Environmental Systems: 3 semester hours.**

Fundamentals of environmental systems for buildings with an emphasis on heating, cooling, and distribution systems.

**ARCH 3346 Sustainable Building: 3 semester hours.**

Issues facing the design and construction industries in creating and maintaining high performance green buildings. Sustainable building projects will be analyzed, green building rating systems of USGBC's LEED system and the DOE's Energy Star program will be studied and researched and presentation of benchmark sustainable case study projects will be accomplished.

**ARCH 3347 Ecology and Man: 3 semester hours.**

Theoretical frameworks for understanding how the physical and cultural constructs of mankind are integral to the natural world, for the purpose of developing the systems thinking skills that will be required to sustain life.

**ARCH 3625 Architecture Design V: 6 semester hours.**

Building design as it relates to structure, circulation, context and support systems.

Prerequisites: (ARCH 2604 or ARCH 2266) and (ARCH 3329 (may be taken concurrently) or ARCH 3293 (may be taken concurrently)).

**ARCH 3626 Architecture Design VI: 6 semester hours.**

Analysis and design of structures of advanced complexity with emphasis on interrelationships of building systems.

Prerequisites: ARCH 3625 or ARCH 3256.

**ARCH 4333 INTL EDUCATION AND TRAVEL INIT: 3 semester hours.**

The study of architecture and building design focusing on historical and/or current projects in the country of \_\_\_\_\_. Included in the course will be a trip to \_\_\_\_\_ that will focus on exploring the methods and practice of architecture and construction in this country.

Prerequisites: (ARCH 2233 or ARCH 1301) and (ARCH 2243 or ARCH 1302).

**ARCH 4343 Structural Systems II: 3 semester hours.**

A study of theory, behavior and design of structural systems in steel and timber.

Prerequisites: ARCH 3329 or ARCH 3293 and (MATH 1123 or MATH 1316).

**ARCH 4344 CAD Construction Documents and Codes: 3 semester hours.**

The organization, development, and preparation of a representative set of working drawings using computer aided design.

Prerequisites: ARCH 1315 or ARCH 2223.

**ARCH 4359 Professional Practice: 3 semester hours.**

Overview of the ethical, legal and administrative responsibilities of the architect. The study of relationships between the architect, the client, and the contractor involved in comprehensive architectural services and emerging techniques of practice.

**ARCH 4361 Landscape Architecture: 3 semester hours.**

Principles of site development as related to climate, topography, and intended use.

**ARCH 4363 Net Zero Energy Design I: 3 semester hours.**

Passive and active design strategies for reducing energy use in buildings followed by on-site renewable energy applications to achieve net zero energy use.

**ARCH 4364 Net Zero Energy Design II: 3 semester hours.**

This course focuses on strategic decarbonization of new and existing buildings, reduction of dependence on fossil fuels and the positive impact on the environment as well as human health. This course will reinforce the adoption of heat pump technologies that can help reduce the carbon footprint of buildings.

**ARCH 4366 Regenerative Design: 3 semester hours.**

Integrated frameworks for developing regenerative capabilities in the products of design, the process of design, and the individuals who engage in design.

**ARCH 4367 Introduction to Interior Design: 3 semester hours.**

Introduction to the profession and practice of interior design.

**ARCH 4368 Interior Design II: 3 semester hours.**

Interior Design II will provide an advanced understanding in designing and detailing interior architecture, exploring the production of interior mechanical, millwork drawings, and Construction Documents.

**ARCH 4373 Advanced Computer Aided Design: 3 semester hours.**

Comprehensive architectural design and presentation using 2- and 3 - modeling software. Emphasis on the role electronic media in the visualization of design projects.

Prerequisites: ARCH 2322 or ARCH 2223.

**ARCH 4374 Building Information Modeling: 3 semester hours.**

Introduction to the fundamentals of Building Information Modeling and how they apply to the design and construction industry and a technology enabled workforce. Introduction to the methods of creation, evaluation and exchange of Building Information Models. Leveraging BIM and 4D modeling for construction optimization and sustainable building initiatives.

Prerequisites: ARCH 1315 or ARCH 2223.

**ARCH 4375 Introduction to Geographical Information Systems: 3 semester hours.**

Concepts and techniques of utilizing geographic information systems to study and model environmental issues including methods of creating, analyzing and displaying GIS data utilizing industry standard software. Global positioning systems (GPS) will be introduced as a means of creating GIS data.

**ARCH 4376 Energy Modeling: 3 semester hours.**

Utilize energy, solar, and daylighting modeling software to determine how to cost effectively achieve high performing buildings.

**ARCH 4397 Special Topics: 3 semester hours.**

The study of various specialized fields of architecture as they relate to contemporary social issues. Topics vary by semester. Course may be repeated for credit when topics vary.

**ARCH 4399 Independent Study: 1-3 semester hour.**

Readings, research, and/or field work on selected topics.

**ARCH 4640 Architectural Internship: 6 semester hours.**

Approved internship in an architecture office, the building construction industry or a planning or public service agency. Prerequisite: Approval of Director or Dean of the School of Architecture.

**ARCH 4645 Architecture Design VII: 6 semester hours.**

Exploration of urban design and the human and environmental impact of individual designs in the built environment.

Prerequisites: ARCH 3626 or ARCH 3266.

**ARCH 4647 Architecture Design VIII: 6 semester hours.**

Advanced problems in architecture and planning.

Prerequisites: ARCH 4645 or ARCH 4456.

**ARCH 4698 Special Projects: 6 semester hours.**

Unique design studio projects tailored to learning objectives. May be repeated for credit.

Prerequisites: ARCH 2266 or ARCH 2626 or ARCH 2604.

**ARCH 4699 Independent Study: 1-6 semester hour.**

Readings, research, and/or field work on selected topics.

**ARCH 5159 Prof Employmnt Dev-Soft Skills: 1 semester hour.**

Graduating senior seminar for Architecture majors to provide an introduction to industry options with an emphasis preparing for success in their career by improving their "soft skills."

**ARCH 5302 Architecture History II: 3 semester hours.**

Emphasis on systems of building structures and on the interrelationship among the components of the systems, the assembly processes, and project control.

**ARCH 5303 Architectural Design I: 3 semester hours.**

Emphasis on systems of building of structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5307 Visual Communications: 3 semester hours.**

Emphasis on systems of building structures and on the interrelationship among the components of the systems, the assembly processes, and project control.

**ARCH 5312 Architectural Technology: 3 semester hours.**

Emphasis on systems of building structures and on the interrelationship among the components of the systems, the assembly processes, and project control.

**ARCH 5315 Computer Aided Design: 3 semester hours.**

Emphasis on systems of building structures and on the interrelationship among the components of the systems, the assembly processes, and project control.

**ARCH 5328 Materials and Methods: 3 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5329 Structural Systems I: 3 semester hours.**

A study of the theory of various structural concepts. Emphasis is placed on statics and strength of materials.

**ARCH 5343 Structural Systems II: 3 semester hours.**

A study of theory, behavior, and design of structural systems in steel and timber.

**ARCH 5345 Environmental Systems: 3 semester hours.**

Fundamentals of environmental systems for buildings with an emphasis on heating, cooling, and distribution systems.

**ARCH 5346 Sustainable Building: 3 semester hours.**

Issues facing the design and construction industries in creating and maintaining high performance green buildings. Sustainable building projects will be analyzed, green building rating systems of USGBC's LEED system and the DOE's Energy Star program will be studied and researched and presentation of benchmark sustainable case study projects will be accomplished.

**ARCH 5348 Structural Systems III: 3 semester hours.**

Structural design and analysis of building systems in steel and reinforced concrete; long spans, lateral forces, connections, code requirements, and economics of structural systems.

Prerequisites: ARCH 4343 or ARCH 4433.

**ARCH 5351 Research Seminar: 3 semester hours.**

Research and programming for the integrated Project Studio.

**ARCH 5359 Professional Practice: 3 semester hours.**

Ethical, legal and administrative responsibilities of the architect. The study of relationships between the architect, the client, and the contractor involved in comprehensive architectural services and emerging techniques of practice.

**ARCH 5374 Building Information Modeling: 3 semester hours.**

Exploring the fundamentals of Building Information Modeling and how they apply to the design and construction industry and a technology enabled workforce. Exploring the methods of creation, evaluation and exchange of Building Information Models. Leveraging BIM and 4D modeling for construction optimization and sustainable building initiatives.

**ARCH 5397 Special Topics: 3 semester hours.**

The study of various specialized fields of architecture as they relate to contemporary social or technical issues. Topics vary by semester. Course may be repeated for credit when topics vary.

**ARCH 5603 Architectural Design III: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5604 Architectural Design IV: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5625 Architectural Design V: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5626 Architectural Design II: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5636 Architectural Design VI: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5645 Architectural Design VII: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5647 Architectural Design VIII: 6 semester hours.**

Emphasis on systems of building structures and on the interrelationships among the components of the systems, the assembly processes and project control.

**ARCH 5650 Internship: 6 semester hours.**

Approved summer internship in an architecture office, the building construction industry or a planning or public service agency or approved foreign study program. Appropriate documentation of the experience will be required.

**ARCH 5656 Architecture Design IX: 6 semester hours.**

Advanced design studio with emphasis on integrated architectural design projects.

**ARCH 5698 Special Projects: 6 semester hours.**

Design projects of differing lengths and content with group or individual involvement. May be repeated for credit.

**ARCH 5699 Independent Study: 1-6 semester hour.**

Readings, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

**ARCH 5957 Integrated Project Studio: 9 semester hours.**

An integrated design project based on research and programming accomplished in ARCH 5351.

## Art Courses

**ARTS 1301 Art Appreciation: 3 semester hours.**

An introductory course that emphasizes an understanding and appreciation for the visual arts (painting, drawing, sculpture, architecture, crafts etc.).

**ARTS 1303 Art History I (Prehistoric to the 14th Century): 3 semester hours.**

A survey of painting, sculpture, architecture and the minor arts from prehistoric times to the 13th century.

**ARTS 1304 Art History II (14th century to the present): 3 semester hours.**

Art from the 13th Century to contemporary times including Europe, Asia, the Far East and the Americas.

**ARTS 1311 Design I (2-Dimensional): 3 semester hours.**

Study of the elements and concepts of two-dimensional design.

**ARTS 1312 Design II: 3 semester hours.**

A continuation of Design I with emphasis on Research and concept development, Form and composition relationships, and Hand-crafted 3-dimensional media experimentation.

Prerequisites: ARTS 1311 or ARTS 1113.

**ARTS 1315 Creative Thinking: 3 semester hours.**

This course seeks to increase students' understanding of the creative process, to allow students to explore different techniques for developing ideas by studying interdisciplinary examples of creativity and applying them in common professional design situations.

Prerequisites: ARTS 1311 or ARTS 1113.

**ARTS 1316 Drawing I: 3 semester hours.**

An introductory course investigating a variety of media and techniques.

**ARTS 2311 Design III: 3 semester hours.**

Exploration of the language of color focusing on color properties and relationships, expressive qualities and symbolic meanings.

Prerequisites: ARTS 1311 or ARTS 1113.

**ARTS 2316 Painting: 3 semester hours.**

Basic principles and elements of painting.

**ARTS 2328 African American Art: 3 semester hours.**

A survey of African American art from the post-Civil War to present, linking with the Arts of the African continent.

**ARTS 2331 Graphic Design History: 3 semester hours.**

Survey and examination of the historical events, technological developments and fine arts movements that have influenced the current state of graphic design.

**ARTS 2336 Sign + Symbol: 3 semester hours.**

Investigation of images and symbols and their meanings within different contexts and employing various image-making techniques.

Prerequisites: ARTS 1316 or ARTS 1153 and (DGMA 2317 or DGMA 2173).

**ARTS 2399 Independent Study: 1-3 semester hour.**

Individual studies in studio art.

**ARTS 3314 Sculpture I: 3 semester hours.**

An exploration of various sculptural approaches in a variety of media, including additive and subtractive techniques.

Prerequisites: ARTS 1113 or ARTS 1311 or ARTS 1153 or ARTS 1316.

**ARTS 3317 Watercolor: 3 semester hours.**

Study and practice in planning and execution of painting in transparent and opaque watercolor.

Prerequisites: ARTS 1311 or ARTS 1113 or ARTS 1153 or ARTS 1316.

**ARTS 3319 Printmaking: 3 semester hours.**

Introduction to basic printmaking techniques, with emphasis on the proper use of tools and equipment.

Prerequisites: ARTS 1311 or ARTS 1113 or ARTS 1153 or ARTS 1316.

**ARTS 3351 Crafts Design: 3 semester hours.**

The study of several crafts including clay, fibers, paper, textiles and plaster.

Prerequisites: ARTS 1311 or ARTS 1113 or ARTS 1316 or ARTS 1153.

**ARTS 3399 Independent Study: 1-3 semester hour.**

Individual studies in studio art.

**ARTS 4310 Creative Photography I: 3 semester hours.**

An introduction to basic photographic processes and techniques used as an art medium.

Prerequisites: ARTS 1311 or ARTS 1113 or ARTS 1316 or ARTS 1153.

**ARTS 4313 Printmaking II: 3 semester hours.**

Exploration of ideas using various printmaking media and techniques. This course builds upon Printmaking I (ARTS 3319) relief fundamentals and introduces additional print processes and combinations of those processes to allow individual expression, with an emphasis in Green Intaglio, Lithography, and Screen Printing.

**ARTS 4321 Book Arts: 3 semester hours.**

This class will involve concepts in printing, binding, papermaking, and interdisciplinary media, and will discuss contemporary theories and approaches in the book arts field. Students learn several bookbinding and hand papermaking methods in order to provide a foundation for the development of concept-driven artists' books that incorporate sculpture, painting, printmaking, photography, encaustic, and graphic design.

**ARTS 4399 Independent Study in Studio Art: 3 semester hours.**

Individual studies in studio art.

## Community Development Courses

**CODE 5301 Introduction to Community Development Planning and Theory: 3 semester hours.**

This course will examine the theoretical and the historical evolution of planning and community development strategies and models designed to increase the physical, social, and economic assets of the built environment from a community to global level; the role and responsibilities of the development process in the profession; spatial and temporal aspects of urban development; problems and consequences of planned and unplanned changes in urban society; and an understanding of the values and ethics affecting public and private actors shaping the practice of planning.

**CODE 5305 Community Development Planning Studio: 3 semester hours.**

This course explores practical research methods, planning systems, and spatial application techniques used as interactive tools in procedural planning, performance, and implementation processes to shape the future of communities, emphasizing approaches to enhancing communities.

**CODE 5307 Community Development Financing: 3 semester hours.**

Non-traditional financing strategies will be studied to support projects addressing the development of distressed communities.

**CODE 5308 Community Analysis, Demography and GIS: 3 semester hours.**

This course will introduce students to the fundamental analytical skills of studying and understanding the structure, function, goals, standards, and performance of a community. This course provides students to the use of demography and other geospatial technologies in the design and development of communities. This course is designed to enhance student's research skills with quantitative and qualitative methods and reasoning of data collection, analysis, and forecasting, while applying practical geospatial modeling for community development initiative inclusive decision making for sustainable planning outcomes in the area of Community Development.

**CODE 5310 Cultural Heritage Preservation: 3 semester hours.**

This course will explore the history and theory of historic preservation in the United States and an overview of the professional practice of preserving the cultural and physical heritage of buildings, structures, sites and communities will be examined.

**CODE 5312 Historic Preservation: 3 semester hours.**

This course will explore research skills and the historic designation process of buildings and districts at the local, state, and national levels.

**CODE 5320 Introduction to Community Leadership: 3 semester hours.**

Identifying and anticipating future leaders of communities through selected programs.

**CODE 5321 Negotiation, Mediation and Facilitation: 3 semester hours.**

Skill building strategies and exercises in critical thinking, listening and identity based communications.

**CODE 5330 Community Political Structure: 3 semester hours.**

The role and function of public and private organizations and local, state and national government in the community development process.

**CODE 5331 Community Growth Management and Leadership: 3 semester hours.**

This course provides an in-depth examination of global urban and regional development, planning, emphasizing strategic decisions and policies to improve urban areas and foster thriving communities. It addresses challenges linked to urbanization and regional development.

**CODE 5332 Community Analysis: 3 semester hours.**

The basic skills of studying and understanding the structure, function, goals, standards and performance of a community.

**CODE 5334 Community Research: 3 semester hours.**

Methods for recognizing information needs, sources and applications.

**CODE 5335 Comprehensive Project Studio: 3 semester hours.**

A comprehensive culminating project that synthesizes and demonstrates students' planning knowledge, skills, and tools acquired in previous courses; the course advances students' written, oral, and graphic communication skills through a practical community development project.

Co-requisite: CODE 5308.

**CODE 5336 Community Physical Structure: 3 semester hours.**

The physical context of the community and its impact on community health and development.

**CODE 5351 Grant Development: 3 semester hours.**

This course will examine the process of securing and managing resources to support effective nonprofit projects and community development activities.

**CODE 5352 Campaigns and Gifts: 3 semester hours.**

Campaign strategic planning and techniques used in driving donor decisions.

**CODE 5354 Research for Capital and Grant Development: 3 semester hours.**

Research for fundraising efforts.

**CODE 5360 Land Development and Planning in Declining Communities: 3 semester hours.**

This course will explore techniques used to identify and acquire vacant or unmanaged properties in depressed neighborhoods. The course examines challenges, social and other influences and changes throughout the world, with a special emphasis upon less industrialized area.

**CODE 5361 Land Development Law and Use Strategies: 3 semester hours.**

This course will introduce students to the principles of land development, the legal context of planning, and land use control strategies. The course will provide the overall development process for planning, the legal framework for planning institutions involving legislative and administrative procedures, ethical and managerial practices, and the understanding of regulatory and non-regulatory urban development planning processes of land-use impacts in the built environment at the local, state, and federal levels. The course also emphasizes equitable and inclusive decision making for sustainable planning outcomes in the area of Community Development.

**CODE 5375 International Community Development Policies and Practices: 3 semester hours.**

The role of government and private organizations in developing distressed foreign communities.

**CODE 5380 Principles of Real Estate I: 3 semester hours.**

This course will introduce students to the basic principles of the real estate profession. Licensing requirements and the Texas Real Estate Licensing Act are covered. This course satisfies one of the core course requirements to apply for a State of Texas Real Estate License.

**CODE 5381 Principle of Real Estate II: 3 semester hours.**

This course will introduce students to real world practices through the use of lectures, guest speakers, and case studies. This course will expose students to the many activities involved in real estate transactions. This course satisfies one of the core course requirements to apply for a State of Texas Real Estate License.

Prerequisites: CODE 5308 or CODE 5803.

**CODE 5382 Law of Agency: 3 semester hours.**

This course covers the representation of property owners, buyers and/or intermediaries. This course satisfies one of the core course requirements to apply for a State of Texas Real Estate License.

**CODE 5383 Law of Contract: 3 semester hours.**

This course covers FHA, VA and Conventional contracts. Students will be exposed to the applications of property acquisition contracts. This course satisfies one of the core course requirement to apply for a State of Texas Real Estate License.

Prerequisites: CODE 5382 or CODE 5823.

**CODE 5384 Promulgated Contract Forms: 3 semester hours.**

As one of the mandatory pre-licensing courses, this foundational course will teach the ins and outs of the Texas Real Estate Commission Promulgated Contract Forms.

**CODE 5385 Real Estate Finance: 3 semester hours.**

As one of the mandatory pre-licensing courses, this course provides a sound understanding of the specialized financing procedures that are used today in the real estate industry.

**CODE 5601 Community Development Studio I: 6 semester hours.**

A selection of supervised field trips, case studies, research projects and other hands-on community experiences to give students a contextual understanding of the community development profession.

**CODE 5640 Internship: 6 semester hours.**

Approved internship with a community development related organization.

**CODE 5699 Independent Study: 6 semester hours.**

Individual reading, research and/or field work in selected topics.

## Construction Science Courses

**CONS 3301 Construction Estimating: 3 semester hours.**

Classification of work and quantity survey techniques. Basic estimating applied to simple construction projects. Creation of bills of materials and quantity take-offs.

**CONS 3353 Managing Construction Operations: 3 semester hours.**

Managing construction operations from concepts of project selection, estimating, bidding, scheduling, subcontracting practices, cost tracking, project documentation, construction bonds, insurance, payments and the elements of close out. Special emphasis on the development of professional communication skills through student prepared multi-media presentations.

**CONS 3363 Surveying and Soils: 3 semester hours.**

Principles of surveying; use of surveying instruments, topographical surveys, and traverses; field practice and computations. Basic considerations of site management and soils considerations for structural stability and integrity in construction projects.

Prerequisites: MATH 2318 or MATH 2183.

**CONS 4341 Residential Construction: 3 semester hours.**

Residential construction processes, scheduling, subcontracting, financing, estimating, project control and current trends in site selection, design and energy efficiency.

**CONS 4342 Commercial Construction: 3 semester hours.**

Focus on the project management of commercial construction projects ranging from high-rise office buildings to small tilt-wall and pre-engineered buildings; topics include project acquisitions, project delivery methods, mobilization, management, and close-out.

**CONS 4344 Highway/Heavy Construction: 3 semester hours.**

Focus on the various aspects of highway/heavy construction; topics include earthmoving and paving equipment and utilization principles, pavement design and placement methods, unit price bidding methods, and a project case study.

**CONS 4345 Facilities Management: 3 semester hours.**

Focus on the various aspects of facilities and property management, including budgeting for operations and management, energy management, change management, design-build changes, in-house versus out-source maintenance, and contracting options.

**CONS 4346 Construction Internship: 3 semester hours.**

Approved internship in the construction industry.

**CONS 4355 Construction Delivery Systems: 3 semester hours.**

Methods and management techniques utilized in the building process, including procurement options, basis of reimbursement, management methods, and construction delivery methods.

**CONS 4360 Construction Labor and Safety: 3 semester hours.**

Constitutional and legal basis of labor relations in the construction industry; craft and trade unions; dual and merit shop operations; development of construction safety plan; safety on the job site; OSHA and related regulations.

**CONS 4363 Construction Law and Ethics: 3 semester hours.**

Delineation of contracts used in the construction industry; emphasis on understanding the functions and interrelationships of documents; review of law applied to the industry; application of the contract, and law to case studies; introduction to resources and analytical process used by construction professionals; ethics in the construction industry.

**CONS 4374 Building Information Modeling: 3 semester hours.**

Introduction to the fundamentals of Building Information Modeling and how they apply to the design and construction industry and a technology enabled workforce. Introduction to the methods of creation, evaluation and exchange of Building Information Models. Leveraging BIM and 4D modelling for construction optimization and sustainable building initiatives.

Prerequisites: ARCH 2223 or ARCH 1315.

**CONS 4375 Scheduling and Mobilization: 3 semester hours.**

Project scheduling procedures to include computer applications and resource loading and leveling; network generation and analysis; project types; office and field planning required to initiate the work; equipment and construction methods selection processes and an examination of contractual mandates specified.

**CONS 4377 Construction Project Controls: 3 semester hours.**

Introduction of students to construction-related financial documents; includes the schedule of values, labor and operations cost reports, construction budgets, schedule and budget integration, and progress analysis and forecast through earned value management.

**CONS 4395 Mediation: 3 semester hours.**

Construction conflict resolution with a focus on negotiation, mediation, arbitration alternatives to litigation will be addressed. The processes and skillsets professionals must possess to effectively engage in alternative dispute resolution strategies effectively will be covered through lectures, writing assignments, readings, and role-playing.

**CONS 4397 Special Topics: 3 semester hours.**

The study of specialized fields of construction science as they relate to contemporary issues. Topics vary by semester. Course may be repeated for credit when the topic varies.

**CONS 4399 Independent Study: 1-3 semester hour.**

Individual reading, research and/or field work in selected topics.

**CONS 4640 Construction Internship: 3-6 semester hour.**

Approved internship in the building construction industry occurring in either the Fall Semester or Spring Semester.

## Digital Media Arts Courses

**DGMA 2315 Fundamentals of Digital 3D Modeling: 3 semester hours.**

This course introduces students to the fundamentals of 3D modeling and surfacing. Participants will learn to create digital models using industry-standard software, with a focus on hands-on projects. Assignments are designed to help students develop a portfolio suitable for 3D artist roles in the video game, animation, and visualization industries.

Prerequisites: ARTS 1312 or ARTS 1123 and (ARTS 1316 or ARTS 1153).

**DGMA 2317 Fundamentals of Digital Imaging: 3 semester hours.**

Introduction to basic image manipulation and vector-based graphic creation with emphasis on technical proficiency, artistic mastery, aesthetic judgment, photographic enhancement and multi-image composition.

Prerequisites: ARTS 1311 or ARTS 1113.

**DGMA 2318 Fundamentals of Interactive Media: 3 semester hours.**

An introduction to the principles of interactive design as it applies to user interface and user experience design, with an emphasis on web and mobile application development, technical proficiency, usability, and aesthetic appeal.

Prerequisites: DGMA 2317 or DGMA 2173.

**DGMA 2399 Independent Study: 1-3 semester hour.**

Individual studies in Digital Media Arts.

**DGMA 3312 Layout I: 3 semester hours.**

Introduction to functionality of basic page design with emphasis on design process, grid hierarchy, and conceptual integration of type and image.

Prerequisites: (ARTS 1311 or ARTS 1113) and (ARTS 1312 or ARTS 1123) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3332, DGMA 3334.

**DGMA 3313 Layout II: 3 semester hours.**

Further development of ability to work conceptually with design problems using multi-page layouts. Topics include concept development, complex sequencing and collateral work.

Prerequisites: DGMA 3312 or DGMA 3123.

Co-requisites: DGMA 3333, DGMA 3335.

**DGMA 3332 Typography I: 3 semester hours.**

Study and exploration into the history of type expressive qualities of letterforms, and visual arrangement of type to support content.

Prerequisites: (ARTS 1311 or ARTS 1113) and (ARTS 1312 (may be taken concurrently) or ARTS 1123 (may be taken concurrently)) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3312, DGMA 3334.

**DGMA 3333 Typography II: 3 semester hours.**

Continuation of Typography I incorporating more advanced and complex problems.

Prerequisites: DGMA 3323 or DGMA 3332.

Co-requisites: DGMA 3313, DGMA 3335.

**DGMA 3334 Branding: 3 semester hours.**

Examination of corporate brand identity development. Topics include logo development, product packaging, marketing collateral, web and social media branding, and broadcast advertising development.

Prerequisites: (ARTS 1311 or ARTS 1113) and (ARTS 1312 or ARTS 1123) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3312, DGMA 3332.

**DGMA 3335 Interactive Media: 3 semester hours.**

Continuation of DGMA 2318 with a focus on scripting desktop applications and visual communication strategies through the design and creation of 2D video games, user-interface, and animation.

Prerequisites: DGMA 2318 or DGMA 2183.

Co-requisites: DGMA 3313, DGMA 3333.

**DGMA 3399 Independent Study: 1-3 semester hour.**

Individual studies in Digital Media Arts.

**DGMA 4314 Problems in Media Arts I: 3 semester hours.**

Examination of visual communication through theoretical studies along with projects combining traditional mediums of art with new and emerging technology.

Prerequisites: DGMA 3313 or DGMA 3133.

Co-requisites: DGMA 4316, DGMA 4318.

**DGMA 4315 Problems in Media Arts II: 3 semester hours.**

Advance examination of visual communication through theoretical studies along with projects combining traditional mediums of art with new and emerging technology.

Prerequisites: DGMA 4314 or DGMA 4143.

Co-requisites: DGMA 4317, DGMA 4321.

**DGMA 4316 Advanced Interactive Media: 3 semester hours.**

Examination of methodologies essential to conceptual design and technical knowledge vital to interactive digital art, design, and visual programming through game engines.

Prerequisites: DGMA 3335 or DGMA 3353.

Co-requisites: DGMA 4314, DGMA 4318.

**DGMA 4317 Social Media Design: 3 semester hours.**

Continuation of DGMA 4316 with an emphasis on applying the principles and practices of social media design to the development of social media campaigns and problems in graphic design.

Prerequisites: DGMA 4316 or DGMA 4163.

Co-requisites: DGMA 4315, DGMA 4321.

**DGMA 4318 Motion Graphics: 3 semester hours.**

Introduction to principles of animation and special effects through graphic storytelling, storyboarding, animatics, screen composition, and compositing.

Prerequisites: DGMA 3333.

Co-requisites: DGMA 4314, DGMA 4316.

**DGMA 4321 Senior Studio Thesis: 3 semester hours.**

Emphasis on preparing students for Senior Art Exhibition.

Prerequisites: DGMA 4318 or DGMA 4183.

Co-requisites: DGMA 4315, DGMA 4317.

**DGMA 4323 Design Practice: 3 semester hours.**

Examination of current design industry theories, programs, technologies and trends. Application of the principles of professional practice with an emphasis on integration of the creative thinking methodology with real-world design projects in a studio environment with selected client-partners and guest lecturers. Prerequisites: must be classified as a junior or senior.

**DGMA 4399 Independent Study: 1-3 semester hour.**

Individual studies in Digital Media Arts.