

ARCHITECTURE

*Effective Term – Summer 1997 [1997*02]*

ARC 111	Intro to Arch Technology	1	6	3
Prerequisites:	None			
Corequisites:	None			

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

*Effective Term – Summer 1997 [1997*02]*

ARC 112	Constr Matls & Methods	3	2	4
Prerequisites:	None			
Corequisites:	None			

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

*Effective Term – Summer 1997 [1997*02]*

ARC 113	Residential Arch Tech	1	6	3
Prerequisites:	ARC 111			
Corequisites:	ARC 112			

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

*Effective Term – Fall 1998 [1998*03]*

ARC 114	Architectural CAD	1	3	2
Prerequisites:	None			
Corequisites:	None			

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

*Effective Term – Summer 1997 [1997*02]*

ARC 114	Architectural CAD	1	3	2
Prerequisites:	ARC 111 or LAR 111			
Corequisites:	None			

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

*Effective Term – Summer 1997 [1997*02]*

ARC 114A	Architectural CAD Lab	0	3	1
Prerequisites:	None			
Corequisites:	ARC 114			

This course provides a laboratory setting to enhance architectural CAD skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings.

*Effective Term – Summer 1997 [1997*02]*

ARC 119	Structural Drafting	2	2	3
Prerequisites:	ARC 113 and MAT 121			
Corequisites:	None			

This course introduces basic concepts associated with sizing and detailing structural assemblies. Topics include vocabulary, span-to-depth ratios, code requirements, shop drawings, and other related topics. Upon completion, students should be able to perform simple calculations and prepare shop drawings and preliminary structural plans.

*Effective Term – Summer 1997 [1997*02]*

ARC 120	Int Design-Residential	1	6	3
Prerequisites:	ARC 111			
Corequisites:	None			

This course covers principles of light construction and materials. Topics include terminology, components, and light construction codes. Upon completion, students should be able to understand light construction principles.

*Effective Term – Summer 1997 [1997*02]*

ARC 121	Int Design-Commercial	1	6	3
Prerequisites:	ARC 120			
Corequisites:	None			

This course covers commercial construction components, system design, and specifications. Topics include a system design project, specifications writing, cabinets, and HVAC components. Upon completion, students should be able to produce a system design, write specifications, detail cabinets, and identify HVAC components.

*Effective Term – Spring 2005 [2005*01] – CRC 3/09/04*

ARC 131	Building Codes	2	2	3
Prerequisites:	ARC 112 or CAR 111			
Corequisites:	None			

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

*Effective Term – Summer 1997 [1997*02]*

ARC 131	Building Codes	2	2	3
Prerequisites:	ARC 112			
Corequisites:	None			

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects.

*Effective Term – Summer 1997 [1997*02]*

ARC 132 Specifications and Contracts

2 0 2

Prerequisites: ARC 112

Corequisites: None

This course covers the development of written specifications and the implications of different contractual arrangements. Topics include specification development, contracts, bidding material research, and agency responsibilities. Upon completion, students should be able to write a specification section and demonstrate the ability to interpret contractual responsibilities.

*Effective Term – Summer 1997 [1997*02]*

ARC 133 Construction Doc Analysis

1 3 2

Prerequisites: None

Corequisites: None

This course covers the analysis of building construction drawings. Emphasis is placed on material identification, understanding construction details, and the relationships of building structural, mechanical, plumbing, and electrical systems. Upon completion, students should be able to analyze a set of construction drawings by identifying building construction materials and understanding construction details and engineering systems.

*Effective Term – Spring 2008 [2008*01] – CRC 03/21/07*

ARC 141 Elem Structures for Arch

4 0 4

Prerequisites: ARC 111 and MAT 121, MAT 171, or MAT 175

Corequisites: None

This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.

*Effective Term – Summer 1997 [1997*02]*

ARC 141 Elem Structures for Arch

4 0 4

Prerequisites: ARC 111 and MAT 121

Corequisites: None

This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.

*Effective Term – Fall 1998 [1998*03]*

ARC 160 Residential Design

1 6 3

Prerequisites: ARC 111

Corequisites: ARC 112

This course introduces the methodology of basic residential design. Topics include residential site design, space organization and layout, residential styles, and the development of schematic design. Upon completion, students should be able to design a residence.

*Effective Term – Summer 1997 [1997*02]*

ARC 160	Residential Design	1	6	3
Prerequisites:	ARC 111			
Corequisites:	None			

This course introduces the methodology of basic residential design. Topics include residential site design, space organization and layout, residential styles, and the development of schematic design. Upon completion, students should be able to design a residence.

*Effective Term—Summer 2008 [2008*02] – CRC 3/27/08*

ARC 210	Intro to Sustain Design	1	3	2
Prerequisites:	ARC 111			
Corequisites:				

This course introduces concepts and principles related to sustainable site development and architectural design. Topics include low impact and sustainable site development, water efficiency, energy efficiency, material and resource management, indoor environmental quality, and return on investment. Upon completion, students should be able to articulate and integrate sustainable design principles into site and architectural design.

*Effective Term – Summer 1997 [1997*02]*

ARC 211	Light Constr Technology	1	6	3
Prerequisites:	ARC 111			
Corequisites:	ARC 112			

This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards.

*Effective Term – Fall 1998 [1998*03]*

ARC 212	Commercial Constr Tech	1	6	3
Prerequisites:	ARC 111			
Corequisites:	ARC 112			

This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

*Effective Term – Summer 1997 [1997*02]*

ARC 212	Commercial Constr Tech	1	6	3
Prerequisites:	ARC 211			
Corequisites:	None			

This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

		Class	Lab	Credit
<i>Effective Term – Fall 1998 [1998*03]</i>				
ARC 213	Design Project	2	6	4
Prerequisites:	ARC 111, ARC 112 and ARC 114			
Corequisites:	None			

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

<i>Effective Term – Summer 1997 [1997*02]</i>				
ARC 213	Design Project	2	6	4
Prerequisites:	ARC 114 and ARC 211			
Corequisites:	None			

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

<i>Effective Term – Fall 1998 [1998*03]</i>				
ARC 214	Architectural Statics	3	0	3
Prerequisites:	ARC 111, ARC 112, and MAT 121			
Corequisites:	None			

This course covers the concepts of elementary statics as applied to architecture. Topics include forces, resultants, and types of force system; equations of equilibrium; reactions of simple architectural structures; internal forces in architectural roof trusses; frames and beams; centroids and moments of inertia as applied to architecture. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium as applied to architectural forms.

<i>Effective Term – Fall 1998 [1998*03]</i>				
ARC 215	Architect Strength of Mat	3	0	3
Prerequisites:	ARC 111, ARC 112, and MAT 121			
Corequisites:	None			

This course covers the concepts of elementary strength of materials within architecture. Topics include structural form, architectural strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements to specific architectural forms.

<i>Effective Term – Summer 1997 [1997*02]</i>				
ARC 220	Adv Architect CAD	1	3	2
Prerequisites:	ARC 114			
Corequisites:	None			

This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

*Effective Term – Summer 1997 [1997*02]*

ARC 221	Architectural 3-D CAD	1	4	3
Prerequisites:	ARC 114			
Corequisites:	None			

This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings.

*Effective Term – Spring 2008 [2008*01] – CRC 03/21/07*

ARC 230	Environmental Systems	3	3	4
Prerequisites:	ARC 111 and MAT 121, MAT 151, MAT 161, MAT 171, or MAT 175			
Corequisites:	None			

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

*Effective Term – Summer 1997 [1997*02]*

ARC 230	Environmental Systems	3	3	4
Prerequisites:	ARC 111 and MAT 121			
Corequisites:	None			

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

*Effective Term – Summer 1997 [1997*02]*

ARC 231	Arch Presentations	2	4	4
Prerequisites:	ARC 111			
Corequisites:	None			

This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

*Effective Term – Summer 1997 [1997*02]*

ARC 235	Architectural Portfolio	2	3	3
Prerequisites:	None			
Corequisites:	None			

This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects.

*Effective Term – Summer 1997 [1997*02]*

ARC 236 Arch Mech/Elec Tech

0 4 2

Prerequisites: ARC 230

Corequisites: None

This course covers the production of working drawings for plumbing, mechanical, and electrical (PME) systems for buildings. Topics include PME working drawing development. Upon completion, students should be able to produce PME working drawings and schedules.

*Effective Term – Spring 1998 [1998*01]*

ARC 240 Site Planning

2 2 3

Prerequisites: ARC 111 or LAR 111

Corequisites: None

This course introduces the principles of site planning, grading plans, and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control, and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

*Effective Term – Summer 1997 [1997*02]*

ARC 240 Site Planning

2 2 3

Prerequisites: ARC 111

Corequisites: None

This course introduces the principles of site planning, grading plans, and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control, and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

*Effective Term – Fall 1998 [1998*03]*

ARC 241 Contract Administration

1 2 2

Prerequisites: ARC 111, ARC 112, LAR 111, or LAR 112

Corequisites: None

This course covers the techniques for reviewing the progress of construction projects. Topics include site observations, field reports, applications for payment, change orders, and other related topics. Upon completion, students should be able to review construction progress and produce appropriate documentation.

*Effective Term – Summer 1997 [1997*02]*

ARC 241 Contract Administration

1 2 2

Prerequisites: ARC 111 or ARC 112

Corequisites: None

This course covers the techniques for reviewing the progress of construction projects. Topics include site observations, field reports, applications for payment, change orders, and other related topics. Upon completion, students should be able to review construction progress and produce appropriate documentation.

*Effective Term – Summer 1997 [1997*02]*

ARC 250	Survey of Architecture	3	0	3
Prerequisites:	None			
Corequisites:	None			

This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

*Effective Term – Summer 1997 [1997*02]*

ARC 261	Solar Technology	1	2	2
Prerequisites:	ARC 111			
Corequisites:	None			

This course introduces passive and active solar design theory and application. Topics include passive solar design, active solar theory, heat loss analysis, and other related topics. Upon completion, students should be able to design a passive solar system.

*Effective Term – Summer 1997 [1997*02]*

ARC 262	Arch Animation & Video	1	6	3
Prerequisites:	ARC 221			
Corequisites:	None			

This course covers three dimensional architectural animation. Topics include storyboarding, rendered animation creation, audio and video input/output, and techniques for camera and object movement in and around buildings. Upon completion, students should be able to produce rendered architectural animations with sound and archive data to selected media.

*Effective Term – Summer 1997 [1997*02]*

ARC 263	Intro to ADA Title III	1	2	2
Prerequisites:	ARC 211			
Corequisites:	None			

This course introduces the American Disabilities Act Title III requirements. Emphasis is placed on Title III requirements as they apply to building construction. Upon completion, students should be able to interpret and apply Title III requirements to buildings.

*Effective Term – Fall 2008 [2008*03] – CRC 09/12/07*

ARC 264	Digital Architecture	1	3	2
Prerequisites:	None			
Corequisites:	None			

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

*Effective Term – Summer 1997 [1997*02]*

ARC 264 Digital Architecture

1 3 2

Prerequisites: ARC 114

Corequisites: None

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

See the SEL and SEM prefixes for generic Selected Topics and Seminar course descriptions.