

	Course	Title	Credit	Gen Ed	Transfers to UHM (SHATATR)	Prereqs	Course description
UHM	ARCH 132	Design Communication	4	DA		none	Exploration of critical judgment and means to conceptualize, develop, represent, and communicate architectonic form and space, including fundamentals of freehand drawing, mechanical drawing, physical model making, diagramming, and graphic techniques.
HAW	AEC 120	Intro to Construction Drawings	3		OTHO ELEC	AEC 118; co-req AEC 110C (or completion)	A core course in basic building construction and common construction drawings. Foundation, framing, finishes, roofs, architectural dimensions, materials symbols, drawings conventions, and more will be covered. An AutoCAD course that applies procedures from AED 110B, AEC 110C, and AEC 118.
HAW	AEC 123	Residential Planning & Design	3		OTHO ELEC	MATH 66; co-req AEC 120 (or completion)	Architectural design concepts, application of AutoCAD, study models, sketching, and group critiqued presentations of design will be introduced. Application of AEC 110B, 118, and 120 are incorporated. A structural model of a three-bedroom residence will be constructed.
HAW	AEC 130	Residential Working Drawings	3		OTHO ELEC	AEC 120; co-req AEC 131 and 138 (or completion)	Advanced study and application of materials and methods of construction specifically related to two-story dwellings. Projects utilize light wood, steel, and/or masonry construction principles and practices. Course includes basic residential planning, drafting expressions, structural details and complete working drawings of a two-story dwelling. All drawing is done using AutoCAD.
HAW	AEC 138	Structural Drawing	1		OTHO ELEC	co-req AEC 131 (or completion)	Introduction to structural drawing for building construction and includes load analysis, concrete and steel plan and detail drawings, and wood frame design. Drawings to be done with AutoCAD. Emphasis on floor and roof framing, lintels and beams, and posts and columns. Goals is to develop in students a sense and basic understanding of structures in building construction.
HON	AEC 114	Architectural Graphics	3		OTHO ELEC	C or higher in AEC 80 or 81; C or higher in ENG 22; MATH 9 or placement in MATH 50/53	This is a first course in graphics that is followed by other courses in the AEC program that involve graphical conceptualization and representation. It is comprised of three components: (1) computer architectural modeling in SketchUp or similar program, (2) visualization using AutoCAD and specialized software, and (3) freehand drawing. Perspective drawing, entourage, shadows, descriptive geometry, and sections and rotations, are walkthrough simulations are some of the topics included in the course.
HON	AEC 127	Civil Engineering Drawing	3		OTHO ELEC	C or higher in AEC 110 and 114; MATH 53/55/107/140 or placement in MATH 205	Introduction to civil engineering drawing with AutoCAD and AutoCAD Civil 3D. Maps, surveys, scales and conventions, contours and profiles, site plans, site utilities, topographic models, excavation, retaining walls, highway layout, subdivision and block plans.
HON	AEC 130	Residential Working Drawings	3		OTHO ELEC	C or higher in AEC 120, 124; co-req AEC 131	A core course in the advanced study and application of materials and methods of construction specifically related to two-story dwellings. Projects utilize light wood, steel, and/or masonry construction principles and practices. Basic residential planning, drafting expressions, architectural details, and complete working drawings. All drawing is done using computer-aided design (CAD) software.

HON	AEC 131	Construction Codes	2			C or higher in AEC 120; C or higher in ENG 100; co-req AEC 130	This course explores the ramifications of codes on building projects. Students apply the material of the course relating to zoning, building, and accessibility requirements to drawing projects in the co-requisite course, AEC 130. This is a lecture-discussion-exercise course.
UHM	ARCH 101	Basic Architecture Studio	4	DA		none	Hands-on exploration of materials and construction techniques and introduction to architectural design processes. Investigation of architecture as creation of space generated by human needs and aspirations including analysis of exemplary precedents.
HAW	AEC 133	Basic Arch Studio A	4		OTHO ELEC	AEC 123, 135; co-req AEC 134 (or completion)	Perception, design and communication is explored through human perception, multi-sensory reception, interpretation of sensory input by the brain and emotional and cultural factors. Elements and principles of basic two- and three-dimensional design concepts. Formal/spatial exercises that explore elements, surfaces, measure and order in both graphic and architectural contexts. Analytical exercises which examine both existing and self-created orders and studio activities involving thinking, reading, writing, drafting, model making, and especially drawing (freehand, with instruments and computer).
HAW	AEC 142	Basic Arch Studio B	4		OTHO ELEC	AEC 134	Materials, Design & Communication. Hands-on exploration of various materials and construction techniques and as introduction to various design processes as systematic approaches to solving architectural/ environmental design problems. Analysis of architecture as the creation of spaces generated by human needs and aspirations and developing concepts to explore and achieve innovative solutions responding to these needs. Studio activities involving thinking, reading, writing, model making and a variety of communication techniques with emphasis on the delineation of 3-D spaces using perspective drawing techniques, light notation and computer modeling.
UHM	ARCH 235	Computer Applications in Arch	4			ARCH 132, and ART 113 or ART 116	Exploration of digital design fundamentals and their application to architectural analysis, conceptualization, design process, and communication of design intent. Repeatable three times.
HAW	AEC 110B	Basic AutoCAD	3		OTHO ELEC	ENG 20R/ESL9, Math 22/50	Designed for students interested in CAD drawing. This course is designed for the student with no computer aided (CAD) experience. Introduction to AutoCAD's basic drawing commands will be the focus including features, functions, and operations such as lines, arcs, circles, symbols, text, dimensions, and editing/modifying objects will be explored.
HAW	AEC 110C	Basic AutoCAD II	1		OTHO ELEC	ENG 21/51/22 or ESL15	Designed for students interested in CAD drawing. Advanced application to design and draw construction plans utilizing AutoCAD LT. Students will set up drawing sheets for plotting using paper space and model space and applications including how to extract information about a drawing. Manipulation of 3-D drawing commands will also be introduced if program is available.
HAW	AEC 134	CAD Options I	1		OTHO ELEC	AEC 118; co-req AEC 131 and 133 (or completion)	An introduction to Autodesk 3D Studio VIZ (if available), a high-end 3D modeling and rendering program primarily aimed at building design. Topics include the user interface, basic modeling concepts, object creation, material rendering, and lighting. The student will construct several 3D computer models. (If the software Autodesk 3D Studio VIZ is not available, a generic 3D rendering program, possibly "Sketch Up" will be substituted.)

HAW	AEC 144	CAD Options II	1		OTH O ELEC	AEC 137; co-req AEC 141B and 147 (or completion)	This course will introduce the student to ArcView's software for Geographic Information System (GIS), a data gathering program, and Global Positioning Systems (GPS) for data gathering of points, lines, features, and areas.
HON	AEC 110	Basic AutoCad	4		OTH O ELEC	C or higher in AEC 80 or 81; C or higher in ENG 22; MATH 9 or placement in MATH 50/53	The foundation AutoCAD course in the Architectural, Engineering and CAD Technologies program. Basic commands and operations from 2D drawing and editing tools to creating solid models and rendering. 2D drawing, text, dimensions, blocks, hatching, reference files, sharing data, 3D drawing, plotting, and more. Designed to qualify students for Autodesk certification. This course also available non-credit in four modules.
HON	AEC 136	Structural Drawing	3		OTH O ELEC	C or higher in AEC 120; MATH 53 or placement in MATH 55/58/135	Introduction to structural drawing for building construction—to load analysis, concrete and steel plan and detail drawing, and wood frame design and drawing with AutoCAD. Emphases on roof framing, lintels and beams, and posts and columns. The goal is develop in students a “sense” and basic understanding of structure in building construction. This course also available non-credit in three modules
HON	AEC 146	Adv Modeling & Presentation	3		OTH O ELEC	C or higher in AEC 110, 124	Advanced 3D modeling and rendering techniques using a high-end computer modeling program aimed primarily at building design. Topics include the user interface, basic modeling concepts, scene creation, object creation, material rendering, and, lighting. Students construct several 3D computer models. This course also available non-credit.
UHM	ARCH 100	Intro to the Built Environment	3	DS		none	Exploration of human responses to place, climate, culture, communication, technology, and time, with emphasis on the impact of scientific knowledge and architectural design theory on history, culture, sociology, technology and built form.
HAW	AEC 115	Introduction to Architecture	2		OTH O ELEC	ENG 20R or ESL 9	Overview of the architectural profession includes professional ethics, industry organizational structure, licensing and its educational requirements, typical framework of architectural firms, compensation, model codes, awarding of contracts and legal requirements for construction projects, project administration, professional organizations, and career opportunities in related fields. Covers the work of significant architects and the importance of the creative thinking process and its application to basic design theory. Exercises emphasize the development of basic skills used in the design of simplified architectural projects.
HON	AEC 135	Intro to the Built Environ	3	DS	ARCH 100 (eff F'09)	C or higher in ENG 250-257	This course explores the evolution of society's physical fabric as revealed by place, climate, culture, technology and time. The work of several well-known architects will be examined to study the impact of scientific knowledge and architectural design theory on history, culture, sociology and built form. Students will prepare several oral presentations to validate their understanding of the course content.
HAW	AEC 135	Intro to the Built Environment - course DELETED	3			course DELETED	Course DELETED - Philosophical development of society's physical fabric as revealed by the range of representative physical designs.