UA SCHOOL OF ARCHITECTURE
Devoted to professional education with a sensibility to place, climate, and sustainability honed in the Sonoran Desert, the School is located in the oldest, continuously-inhabited city in the US. Our principles:

CRITICAL PRACTICE We nurture a critical, reflective, creative, and professional culture.

EXTREME CLIMATE DESIGN We value design that is climate responsive.

SUSTAINABILITY We embrace our responsibility as architects to positively contribute toward environmental as well as economic and social sustainability. We integrate sustainability, in its broadest terms, throughout the curriculum.

HANDS-ON LEARNING We value experiential, as well as intellectual, learning.

SETTLEMENT We address the needs of our community, through teaching, research, and service.
PROFESSIONAL PROGRAMS
B.Arch, M.Arch
Our NAAB-accredited professional degrees prepare graduates for leadership and disciplinary innovation as well as professional registration.

We focus our curricula into five areas of critical practice:

• Studio: To design comprehensively and synthetically, inclusive of other disciplines, and in tune with climate and setting.
• Technology: To design in response to, and taking inspiration from, technological criteria, materiality, and constructability—and, working towards a post-carbon paradigm for environmental sustainability.
• Design Communications: To critically and innovatively engage with digital and analogue tools to explore and communicate architectural propositions.
• History+Theory: To research, analyze, and appreciate the historical and theoretical traditions of the discipline, with particular understanding of their practice impact.
• Professional Practice: To understand, engage, and critically appraise professional practices, with particular commitment to ethical standards, environmental impact, and civic outreach.

GRADUATE RESEARCH PROGRAMS
MS.Arch—Design + Energy Conservation,
MS.Arch—Heritage Conservation, MS.Arch—Urban Design,
MS.Arch—Emerging Building Technologies
MS.Arch—Independent Option
The Master of Science in Architecture (MS.Arch) is a post-graduate degree devoted to applied research in the built environment. With a flexible curriculum of approximately three semesters, this program expands the expertise of those who have an undergraduate or professional degree. The ability to conduct research on the built environment distinguishes our graduates from those who have professional degree. Many students publish research findings or develop and execute funded research as part of their degree.

STATE-OF-THE-ART MATERIALS AND ENERGY LABORATORIES
Our world-class Materials Lab allows students to explore, model, fabricate, and test their work. The 9,000 sf MatLab features CNC tools, machining tools, digital printers, and laser cutters that handle a wide variety of materials: woods, metals, concrete, ceramics, glass, plastics, and synthetics. Just as important, it is staffed by advanced craftspeople who care about learning and innovation. The House Energy Doctor (HED) laboratory contains resources and equipment where luminous, thermal, and sonic environments can be investigated.
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The Master of Science in Architecture (MS.Arch) is devoted to applied research in the built environment. With a flexible curriculum of approximately three semesters, the degree currently has five concentration areas: Design and Energy Conservation, Heritage Conservation, Emerging Building Technologies, Urban Design, and Independent Research Option.

The MS Architecture program provides opportunities for leadership, scholarship, entrepreneurship, and innovation across private, public, and academic arenas. The ability to conduct applied research in a focus area specific to the built environment distinguishes our graduates from those who only have professional degrees. Many students publish research findings or develop and execute funded research as part of their degree.

For more information, visit us online at capla.arizona.edu/master-science-architecture

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Students have five concentration options within a flexible curriculum of approximately three semesters.

**MS.Arch—Design + Energy Conservation**

This degree teaches principles in energy conservation and advances energy research applicable in various climatic regions. Methodologies include climate responsive energy conservation, passive solar design, natural ventilation, and net-zero energy solutions. Research includes site survey methods, field test instruments, and computational work in estimating energy use in the built environment.

**MS.Arch—Heritage Conservation**

The MS.Arch-HC program educates students in the preservation of the built environment as part of a comprehensive ethic of environmental, cultural, and economic sustainability.

**MS.Arch—Emerging Building Technologies**

The MS.Arch-EBT program engages research activities that allow students to envision hypothetical, potential, and non-existent architectural technologies. Students apply scientific knowledge to emergent design processes, materials, and methods to forecast and develop advanced, smart, sustainable, and innovative architectural systems.

**MS.Arch—Urban Design**

This focus area uses urban research to illuminate interdependencies among buildings, landscapes, infrastructure, public spaces, and society. From the research emerges deep understanding of settlement and innovative design that is sustainable and offers improved quality of life.

**MS.Arch—Independent Option**

This focus area is for students whose research direction lies outside the other concentrations but within our Faculty’s expertise, such as multi-scalar research or integration of the other focus areas.
The Graduate Certificate in Heritage Conservation consists of 6 courses/18-credits and can be completed in as little as one year. Required courses include:

- Introduction to Heritage Conservation
- Cultural Resources Management
- Documentation and Interpretation of the Historic Built Environment
- Preservation Planning Issues
- Introduction to Archaeological Conservation
- Internship

For more information, visit us online at capla.arizona.edu/heritage

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The Heritage Conservation program educates students in the preservation of the built environment as part of a comprehensive ethic of environmental, cultural, and economic sustainability. The program, which leads to a Graduate Certificate in Heritage Conservation, is:

Interdisciplinary teaching holistic problem-solving within an integrated environment of natural and cultural resources including the programs of anthropology, archaeology, architecture, art history, history, landscape architecture, materials science, and planning;

Inter-institutional promoting collaborative engagement between public and private institutions with a curriculum incorporating community service as a method of learning; and

International in scope and regional in application, defined by the arid lands geography of the Greater Southwest.

The program curriculum combines a variety of instructional delivery mechanisms to ensure students are ready for the professional workplace. These include:

• Classroom lectures in theory and practice of heritage conservation
• Lectures from guest speakers who are experts in their fields
• Workshops, archival research, laboratory and field work
• Collaboration with local, state, tribal and federal agencies
• Outreach to community partners
• Completion of an internship in a heritage conservation field

The Graduate Certificate in Heritage Conservation can be combined with the MS Planning, MS Architecture, and Master of Landscape Architecture degrees in a seamless fashion. For more information about these combined programs, please contact the Graduate Programs Coordinator or the Coordinator of Heritage Conservation.
Architects bear more responsibility than anyone for reversing global climate change. Since the construction and operation of the built environment is responsible for nearly half of global greenhouse gas emissions, architects have a unique and pressing opportunity to, yes, save the planet. This will require transforming the way buildings are designed, built, and operated—which in turn will require changing how architects think. How architects think is established in architecture school.

Every course offered in the School of Architecture addresses sustainability in some way. Based on the Living Building Challenge, our Sustainability Protocol is integrated directly into the studio curriculum and is built on focus areas and iteratively implemented throughout both professional degrees.

For more information, visit us online at capla.arizona.edu/soa-sustainability-pedagogy

Sustainability Pedagogy in Design Studio Curriculum

The UA School of Architecture is the first accredited program in the nation to implement a sustainability protocol across an entire studio curriculum. While a number of architecture schools offer specialized courses in sustainability or individual studios with a sustainability emphasis, we have a sustainability rubric that spans every studio in our B.Arch and M.Arch degrees.

Based on the International Living Future Institute’s innovative certification program, the “Living Building Challenge,” the School’s Sustainability Protocol is based on six focus areas: Environs, Water, Energy, Matter, Wellness, and Culturation. Student projects demonstrate their effectiveness to increasingly rigorous standards as the studios advance. Just as architects have to respond to sustainability protocols, such as LEED, in any building of significance, UA students are learning to account for the sustainability performance of their designs, both in principle and with metrics, from the very first year of study.

This initiative formalizes a collectively shared vision for the School to guide critical inquiry around the complex issues that our graduates face in practice.

The development of this sustainability pedagogy was the result of assessing current professional sustainability rubrics, literature reviews of sustainability practices in other architecture schools, and consultation with architects running advanced practices in sustainable design. Implementation of the UA protocol began in 2014–2015, with fundamental concepts introduced in foundation studios; implementation of the program to later years will follow this class through the five-year degree.

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Acquire knowledge and skills on current cutting edge research in building energy efficient design that includes high performance, green, solar and renewable energy, and net-zero design of residential and commercial buildings. Learn advanced energy audit techniques developed by the award-winning House Energy Doctor® (HED) program at CAPLA for over 30 years. This field of specialization is considered the fastest growing segment of the building industry and supports one of the most sought-after and highly-paid job areas in the building design and management market across private, public, and academic sectors.

Theoretical learning is verified by empirical research and experimentation in the House Energy Doctor (HED) luminous, thermal, and acoustic laboratory of the Design and Energy Conservation Master’s of Science in Architecture program in School of Architecture at CAPLA.

For more information, visit us online at www.hed-online.com

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The certificate is a stand-alone program, available to applicants with a baccalaureate degree in any discipline. Main emphases in the curriculum include:

**Awareness: Energy + Environment**
Fosters awareness of the global and local energy and water problems and of the qualitative and quantifiable environmental forces that contribute to energy consumption. Become aware of thermal sensation within buildings including solar energy and light, climate and microclimate factors, and principles of human thermal comfort as related to the built environment.

**Understanding: Energy Use in Building**
Understand factors that contribute to energy flows and consumption in buildings such as thermodynamic and heat transfer. Explore major external and internal forces affecting energy use and thermal characteristics of construction materials, infiltration and natural ventilation, fenestration and solar gain, electric and people thermal loads, and performance of small scale mechanical systems.

**Performing: Energy Efficient Design**
Perform energy assessment and run energy conservation strategies such as building shape and orientation, passive solar design, envelope materials & components, Natural ventilation, active solar design are explored including their contribution to energy savings, Analyze cost efficiency and return on investment that achieve net-zero design while sequestering greenhouse gas emission.

**Mastering: Energy Auditing and Modeling**
Master building energy auditing and industry standard computer energy modeling techniques performed by the House Energy Doctor program. Participants will use the HED lab to get engaged in real-world application using site instrumentation. Digital and hand-held. Master how to comply with local codes and estimate energy cost savings from energy conservation strategies.
American Institute of Architecture Students (AIAS)
The American Institute of Architecture Students has a vibrant UA Chapter with strong leadership and broad participation. Activities include mentoring programs, portfolio charrettes, state and national conferences, and social events.

Freedom By Design
This AIAS community service program, utilizes the talents of architecture students to radically impact the lives of low-income and disabled people in our community through modest design and construction solutions. Vital modifications improve the safety, comfort and dignity of the home’s occupants.

Puente
Founded in 2015, the Hispanic Architecture Club fosters an educational and social culture within the School that appeals to those of, and interested in, Hispanic culture. Puente recognizes the value of diversity, inclusion, and community service opportunities as a benefit for the School, our students, and communities near Tucson and the border.

United States Green Building Student Group (USGBC/SG)
The UA USGBC/SG) chapter was formed in 2011 with the aim of developing the next generation of green building leaders. The chapter conducts monthly meetings with outside speakers who make presentations on sustainability issues, tour LEED projects throughout Arizona, and work on community service projects, guiding local non-profits and private citizens in the implementation of no cost/low cost strategies for more efficient, healthy, and resilient environments.

Tau Sigma Delta
Tau Sigma Delta Alpha Epsilon Chapter was founded in 2013. TSD has started CAPLA’s first student-edited academic journal, [TRANS-] loci, and is currently working on becoming the student point of contact for local architectural professionals in Tucson.
Beyond their traditional role, students in the UA School of Architecture are partners in our School’s learning and outreach mission. The service, honor, professional, and social organization chapters at UA run many programs, outside of the School’s curricula, that improve campus life, expand education, positively impact the community, and promote excellence in architecture education, training, and practice. Their leadership comprises some of our best and brightest students and the membership is at the heart of the spirit of collegiality and mentorship that exists among students.

For more information, visit us online at capla.arizona.edu/capla-student-council-student-organizations
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